

VISUAL RESOURCES/AESTHETICS ANALYSIS

OCOTILLO WELLS SOLAR FARM

OCOTILLO WELLS, CALIFORNIA

3300-12-004 (MUP); 3910-12-12-001 (ER)

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Executive Summary

The Ocotillo Wells Solar Farm Project Visual/Aesthetics Analysis provides an evaluation of potential Project impacts on existing visual resources and character of the surrounding community of Ocotillo Wells, California, in northeastern San Diego County.

With regard to visual resources, the Project would not result in the introduction of features that would significantly detract from or contrast with the visual character of the surrounding community by conflicting with visual elements or quality of an existing area (i.e., through conflicting style, size, coverage, scale, building materials, etc.). The Project would not result in the removal of or substantial adverse change to one or more features that contribute to the valued visual character or image of the Project area, including but not limited to designated landmarks, historic resources, trees, or rock outcroppings. Furthermore, the Project would not substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, trails within an adopted County or State trail system, scenic vista or highway, or recreational area. The Project as designed would also not result in an inconsistency with any goals, standards, or policies related to visual resources as given in the County General Plan or County Zoning Ordinance.

For the above reasons, it was determined that the Project would not result in potentially significant impacts on visual resources in the Ocotillo Wells community. As such, no mitigation measures are required or proposed.

1.0 Introduction

1.1 Purpose

The purpose of this Visual Resources/Aesthetics Analysis is to assess the potential visual impacts of the Project, determine the significance of the impacts under the California Environmental Quality Act (CEQA), and to propose measures to avoid, minimize, or mitigate potential adverse visual impacts associated with construction of the proposed Ocotillo Wells Solar Farm Project on the surrounding visual environment.

The Project is intended to allow for the installation and operation of a photovoltaic (PV) or concentrated photovoltaic (CPV) electrical generation facility near the community of Ocotillo Wells in northeastern San Diego County; refer to Figure 1, Regional/Local Vicinity Map, and Figure 2, Aerial Photograph. The Project represents an opportunity to provide the residents of Ocotillo Wells and the greater surrounding area with a source of clean energy from renewable sources.

As future population growth continues within San Diego County, the demand for electrical service will continue to increase accordingly. During the October 2007 wildfires, as well as other recent wildfire events, many residents within San Diego County experienced temporary shortages in available electrical power, due to the direct and/or indirect result of such fires. The Project represents an additional clean source of electrical power that would supplement energy currently supplied by the existing power grid, thereby reducing the potential for power shortages to occur and decreasing demands on the capabilities of the existing distribution system.

1.2 Key Issues

Key issues to be evaluated in this analysis are whether the Project has the potential to adversely impact the existing visual character or quality of the affected properties and/or the physical or natural surroundings. Potential visual effects are considered from public roadways and other public vantage points in and around the Ocotillo Wells community. Project design attributes; the potential to remove, change, or add features that contribute to the existing quality of the visual landscape; and, potential conflicts with applicable plans or policies relating to visual resources are considered.

1.3 Principal Viewpoints to be Covered

The 339-acre development area and associated offsite lands where improvements would occur for access purposes would be potentially visible from several principal viewpoints within the Ocotillo Wells area, as follows:

- ☞ Split Mountain Road / Existing Substation Looking Southeast
- ☞ Split Mountain Road Looking East
- ☞ State Route 78 Looking Southwest
- ☞ Anza Borrego Desert State Park Looking Northeast
- ☞ Anza Borrego Desert State Park Looking North from Existing Railroad Line/Anza-Borrego State Park

Other views may occur from surrounding public vantage points, such as trails within the expansive Anza-Borrego Desert State Park, which borders the Project site along its southern boundary, and spans further to the north, west, and south to the west of Split Mountain Road and north of State Highway 78; higher elevations within the Ocotillo State Vehicular Recreation Area, approximately 3.3 miles to the north/northwest of the site across State Highway 78; and, at various distances from mountains within the surrounding area to the north, northwest, and south.

In addition, limited views to the Project may occur from surrounding private lands that support limited rural single-family residential uses, but would generally be restricted or visually reduced due to the flat terrain of the valley floor and distance from the site. The Project site may be intermittently visible across the valley from public vantage points to the west, southwest, and south, as well as from the north across State Highway 78, at higher elevations within the mountains; however, such views would occur at extensive distances from the Project and would be greatly reduced as a result. Additionally, the Project site is located approximately four miles to the southeast of the Ocotillo Airport (public) and may be visible during flight operations associated with the facility.

The key views identified above are considered herein, and the Project's potential to alter or affect existing views from these surrounding public vantage points within the viewshed are analyzed in depth. To support the analysis, visual simulations were prepared to illustrate the proposed Project elements and the visibility of such elements within the landscape. As described in greater detail below, four alternative solar technologies are being considered for installation with the Project. The visual simulations were prepared to evaluate the most visually impactful Project design, including evaluation of the Project design at maximum panel height of

30 feet as measured from the ground surface (see description of Dual-Axis Tracker Units, below). In doing so, the environmental analysis considers the “worst case” scenario to demonstrate the most potentially adverse visual effects that the Project would have on the existing setting and on views from surrounding public vantage points.

2.0 Project Description

2.1 Project Location

The land area that comprises the Project site are located just east of the community of Ocotillo Wells, California, within northeastern San Diego County; refer to Figure 1, Regional / Local Vicinity Map, and Figure 2, Aerial Photograph. The Project would affect a portion of two parcels totaling approximately 440 acres, located just east of Split Mountain Road, approximately 3.1 miles south of State Highway 78 (SR 78).

2.2 Project Description

The Project proponent is preparing an application for development and operation of a photovoltaic (PV) or concentrated photovoltaic (CPV) solar farm to be located on privately-held lands near Ocotillo Wells. The Project would require approval from the County of San Diego for a Major Use Permit (MUP) to allow for the construction, operation, and maintenance of such facilities for the long-term generation of clean renewable energy from solar power.

The County Assessor Parcel Numbers (APNs) that comprise the Project area for the main facilities are 253-390-57 and 253-390-58, totaling 440 acres (approximately 280 acres and 160 acres, respectively); however, the proposed Project development footprint would total approximately 338.1 acres. The development footprint for the Project includes approximately 336.4 acres of the 440 acres, plus approximately 1.74 acres of disturbance for offsite improvements for access purposes (access road/easement from Split Mountain Road).. The remaining approximately 103.6 acres of unaffected lands would remain in their natural state. Gildred Building Co., LLC currently owns APN 253-390-57 and APN 253-390-58.

To allow for flexibility in the ultimate type of technology utilized for construction of the solar farm, four variations of PV and CPV alternative technology systems are being considered by the Project applicant. The proposed development footprint would remain the same with any of the technology scenarios selected. In addition to the solar panels, development would include construction of two 10,000-gallon water storage tanks and an operations/maintenance building with an onsite septic system (approximately 1,040 s.f., height of 15-16 feet). Additionally, a substation (development footprint of approximately 62,500 square feet, maximum height of 35 feet) that would be dedicated to the Imperial Irrigation District (IID) and a private switchgear

yard (development footprint of approximately 96,750 s.f.) with a control house are proposed; however, only a limited portion of these areas would support physical structures. Refer to Figures 3A to 3F, for illustration of the Major Use Permit Plot Plan(s) and Elevations/Details. The Dual-Axis Tracker System and the Dual-Axis Tracker Units, as described in detail below, would also require installation of six 125kW emergency generators located on a 12-foot by 20-foot concrete pad within the interior of the development area to enable the solar panels to be rotated to the stow position, in the event that power from the local utility is lost or when high winds occur.

The energy generated by the Project with any of the four alternative technology systems would be transmitted via a central overhead 34kV collection line to the substation proposed in the northeast corner of the site, adjacent to an existing 92 kilovolt (kV) “R-Line” that runs through the northeastern corner of the affected parcel. The solar farm is proposed to be connected to the R-Line with an interconnection agreement with the IID. The R-Line runs aboveground and ultimately connects to the existing San Felipe Substation, located approximately 2.1 miles to the northwest of the point of interconnection (POI).

Each of the four layouts would also require construction of a number of equipment pads to support small enclosures to house the associated inverters/transformers/switching gear. The total number of required equipment pads within the development footprint, as well as the combination of components that each would support, would vary based upon the technology system selected.

The ultimate arrangement/number of solar panels, equipment pads and structures, and internal access roads are shown on the MUP Plot Plans prepared specific to each of the proposed solar technology systems; refer to Figures 3A through 3F, Major Use Permit Plot Plan(s), and Figure 4, Preliminary Grading Plan; however, each of these layouts are subject to modification at final engineering design. Each of the four solar technology systems being considered is described in brief below.

Fixed-Axis Rack System

The Fixed-Axis Rack System would have an anticipated production capacity of approximately (up to) 42 MW (alternating current - AC). The Project design would consist of a series of PV solar panels on a fixed-axis rack system, installed on rack pilings of 4-6 inch diameter metal I-beams or 4-inch diameter round pipe.

The solar panels would be oriented along an east-west axis with the panels generally facing to the south to maximize solar absorption during the hours of daylight. The panels would be rack-mounted in a two-panel system (one panel mounted above a second panel). Panels (rack

system) would measure approximately nine feet wide and approximately 51 feet in length, with a maximum of 10 feet in height, as measured from ground surface to the top of the panel.

Spacing between each row along the north/south axis would measure approximately 19 feet center to center. Up to 42 individual equipment pads (approximately 15 feet by 40 feet, or 600 square feet in size) would be constructed within the solar array field to support the required inverters/transformers; refer to Figure 3B, Major Use Permit Plot Plan – Fixed-Axis Rack System.

A series of north-south (spaced approximately every 640 feet) and east-west (spaced approximately every 465 feet) running all-weather fire access roads, of minimum 24-foot width (covered with a binding agent), would be provided to meet design requirements of the San Diego County Fire Authority. These roads would also serve for purposes of maintenance.

Single-Axis Rack System

The Single-Axis Rack System would have an anticipated production capacity of approximately (up to) 50 MW (alternating current). The Project design would consist of a series of single-axis tracking PV solar panels supported on driven pier footings.

The solar panels would be aligned in north/south rows and would face to the east in the morning and to the west in the evening hours, tracking the sun along the vertical axis to maximize solar absorption during the hours of daylight. The panels would be rack-mounted, measuring approximately seven feet in width and 90 feet in length (panel array), with a maximum height of up to 9.5 feet, as measured from the ground surface to the top of the panel.

Spacing between each row along the north/south axis would be approximately 17 feet center to center. Up to 43 individual equipment pads (approximately 15 feet by 40 feet, or 600 square feet in size) would be constructed within the solar array field to support the required inverters/transformers; refer to Figure 3C, Major Use Permit Plot Plan – Single-Axis Rack System.

A series of north-south (spaced approximately every 700 feet) and east-west (spaced approximately every 390 feet) running all-weather fire access roads, a minimum 24-foot width (covered with a binding agent), would be provided, per design requirements of the San Diego County Fire Authority. Additionally, a series of 10-foot wide unsurfaced roads would be provided within the solar field for purposes of maintenance.

Dual-Axis Rack System

The Dual-Axis Rack System would have an anticipated production capacity of approximately 45 MW (alternating current). The Project design would consist of a series of CPV solar panels

installed on a dual-axis rack system. The solar arrays would be constructed on pile-driven pier footings.

The solar panels would be aligned in rows running along a north-south axis and would rotate to face the east in the morning and the west in the evening hours, tracking the sun along the vertical and horizontal axes to maximize solar absorption during the hours of daylight. As a dual-axis system, the panels could also be rotated along the north-south axis to change the angle of the panel, depending on the time of year, in order to maximize the absorption of sunlight.

Each row would contain a system of up to four arrays. Each array of panels would support a grouping of eight “paddles,” with each paddle supporting eight modules of solar collectors. Each array would measure approximately 18.5 feet in width and 80 feet in length (panel array). The total height of the arrays would be approximately 23 feet in height, as measured from ground surface to the top of the panel.

Spacing between each row along the east-west axis would be approximately 53 feet center to center. An estimated 46 individual equipment pads (approximately 15 feet by 40 feet, or 600 square feet in size) would be constructed within the solar array field to support the breakers/transformers; refer to Figure 3D, Major Use Permit Plot Plan – Dual-Axis Rack System. Additionally, construction would include installation of six 125kW emergency generators (each located on a 12-foot by 20-foot building pad) to provide a reserve source of power in the case of power failure. The generators would provide energy to rotate the tracker units to the stow position in the event of an emergency or high winds.

A series of east-west running all-weather fire access roads, of minimum 24-foot width and unsurfaced (covered with a binding agent), would be provided approximately every 330 feet between the horizontal rows of panels, per design requirements of the San Diego County Fire Authority. North-south running fire access roads would be spaced approximately every 610 feet. Additionally, a series of unsurfaced roads would be provided within the solar field for purposes of maintenance.

Dual-Axis Tracker Units

The Dual-Axis Tracker Units would have an anticipated production capacity of approximately 54 MW (alternating current). The Project design would consist of series of CPV solar trackers installed on driven 24” to 30” pier footings/concrete foundation system.

The CPV trackers would be aligned in north/south rows and would face to the east in the morning and to the west in the evening hours, tracking the sun along both the horizontal and vertical axes to maximize solar absorption during the hours of daylight. Each tracker would

measure approximately 25 feet wide and 48 feet in length, with a maximum height of 30 feet, as measured from ground surface to the top of the unit.

The series of CPV trackers would be spaced approximately 82 feet on-center east/west, and 69 feet on-center north/south. An estimated 40 individual equipment pads (approximately 15 feet by 40 feet, or 600 square feet in size) would be constructed within the solar array field to support the required inverters/transformers; refer to Figure 3E, Major Use Permit Plot Plan – Dual-Axis Tracker Units. Additionally, construction would include installation of six 125kW emergency generators (each located on a 12-foot by 20-foot building pad) to provide a reserve source of power in the case of power failure. The generators would provide energy to rotate the tracker units to the stow position in the event of an emergency or high winds.

A series of north-south running all-weather fire access roads, of minimum 24-foot width and (covered with a binding agent), would be provided approximately every 310 feet between the vertical rows of panels, per design requirements of the San Diego County Fire Authority. East-west running fire access roads would be spaced approximately every 590 feet. Additionally, a series of north-south running roads would be provided within the solar field for purposes of maintenance.

2.2.1 Project Substations and System Interconnection Points

Each of the four layouts would also require construction of a number of equipment pads to support small enclosures to house the associated inverters/transformers (PV technology) or breakers/transformers (CPV technology). The total number of required equipment pads within the development footprint, as well as the combination of components that each would support (e.g. either transformers/inverters or breakers/transformers), would vary based upon the technology system selected; refer also to Figure 3F, Major Use Permit Plot Plan - Elevations/Details.

The energy generated by the Project with any of the four alternative technology systems would be transmitted via a central overhead 34kV collection line to the substation proposed in the northeast corner of the site, adjacent to an existing 92 kilovolt (kV) “R-Line” that runs through the northeastern corner of the affected parcel. The solar farm is proposed to be connected to the R-Line with an interconnection agreement with the IID. The R-Line runs aboveground and ultimately connects to the existing San Felipe Substation, located approximately 2.1 miles to the northwest of the point of interconnection (POI).

The proposed substation would include transformers, breakers, switches, meters, and related equipment, as appropriate. Although the exact dimensions are unknown at this time, the overall substation footprint is anticipated to be approximately 250 feet by 250 feet, with various supporting equipment installed within this footprint. Overall height of the substation would be an estimated 35 feet at the apex.

2.2.2 Inverter/Transformer/Breaker Enclosures

Equipment pads would be constructed within the solar panel fields to support inverters/transformers/breakers, the number of which would vary based on the type of solar technology (PV or CPV) selected for the Project. These structures would be approximately eight feet in height at the apex, with a metal canopy installed approximately three feet above the structures. Each enclosure would be constructed on a level concrete building pad approximately 40 by 15 feet. The structures would be constructed of non-flammable materials (i.e., steel). Each structure would be designed with screened ventilation provided on the roof to allow for the circulation of air for cooling purposes.

2.2.3 Grading

Within this area, overall Project grading would vary depending upon the type of solar technology installed, but is estimated to require a maximum of approximately 370,000 cubic yards (c.y.) of balanced cut and fill. This total would include approximately 20,000 c.y. of balanced cut and fill, in addition to removal and recompaction of approximately 350,000 c.y. of soil (disturbance to a depth of eight inches over the 338-acre development area) to prepare the site for installation of the solar facilities; refer to Figure 4, Preliminary Grading Plan. No onsite or offsite cut or fill slopes or retaining walls are required or proposed.

2.2.4 Lighting and Glare

Limited Project lighting would be installed to allow for ongoing maintenance and security. Low-level lighting (100 watt) would also be installed at the main entry gate, switchgear yard and substation entrances, control room, and operation buildings to facilitate safety and access. Illuminated signage at the Project entrance and each inverter station that notes the location and identification number of each electrical grid disconnect and circuit breaker would also be installed.

All Project lighting would be operated manually or activated via motion sensors. All lighting would be shielded and directed downward to minimize the potential for glare or spillover onto

adjacent ownerships and/or public lands and would conform to County of San Diego Light Pollution Code for exterior lighting requirements.

2.2.5 Signage

Minimal Project signage is proposed to allow for the identification of the Project owner and for safety and security purposes. Signage is proposed to be installed on the fence in the vicinity of the main entry gate. Signage would identify the Project operator and owner as Gildred Building Co., LLC, and would provide emergency contact information. All signage would conform to County of San Diego signage requirements for the applicable zone.

Illuminated signage at the Project entrance and each inverter station that notes the location and identification number of each electrical grid disconnect and circuit breaker would also be installed. Additionally, small-scale signage would be placed intermittently along the perimeter fencing on all exterior MUP boundaries to indicate “No Trespassing” and “Private Property” for security purposes, as allowed by County regulations.

2.2.6 Access / Circulation

Construction Access

All materials for Project construction would be delivered to the sites by truck. The majority of truck traffic would occur on designated truck routes and/or major streets (e.g. Highway 78, Split Canyon Road). Traffic resulting from construction activities would be temporary and may occur along area roadways as workers and materials are transported to and from the Project area.

Long-Term Access

Long-term access to the site would be provided from Split Mountain Road via a 24-foot wide all-weather paved road over a 40-foot access/utility easement that extends eastward to the southwestern boundary of the 280-acre parcel. Split Mountain Road runs generally north-south to the west of the boundary of the western-most parcel affected by the Project. The roadway is a two-lane surfaced roadway and provides access from State Highway 78 to the south where it terminates near the U.S. Gypsum Company Quarry, located approximately 3.5 miles south of the Project site. No improvements are proposed to Split Mountain Road.

Interior access would be provided onsite via a series of north-south and/or east-west trending all-weather fire access roads of minimum 24-foot width (covered with a binding agent).

Additionally, a series of roads would be provided within the solar field to support routine maintenance. The layout of these interior roads would vary slightly depending on the type of solar technology selected.

In order to control dust during the life of the Project, a non-toxic, biodegradable, permeable soil-binding agent or permeable rock material would be applied to all disturbed or exposed surface areas as follows: a) A permeable soil-binding agent suitable for both traffic and non-traffic areas shall be used. These agents shall be biodegradable, eco-safe, with liquid copolymers that stabilize and solidify soils or aggregates and facilitate dust suppression; or, b) Alternatively, a permeable rock material consisting of either river stone decomposed granite or gravel could be placed in a thin cover over all exposed surface area in-lieu of the binding agent referenced above. In-lieu of, or in combination with a) and b) above, the areas located between the solar arrays, and any non-drivable surface may be revegetated with native noninvasive plant species. The binding agent would be reapplied approximately every two years for maintenance purposes.

Fencing/Gates

The perimeter of the MUP area would be fenced with a 6-foot high chain link fence with one foot of two-strand barbed wire for security purposes to prevent public access. “Breakaway” fencing would be installed along those portions the boundary of the development area along segments where storm water flows would occur perpendicular to the fence to ensure that the fence gives way in the event of a flood, thereby eliminating potential obstruction of the flow of floodwaters and associated debris. A gate is proposed at the southwestern corner of the MUP area to provide secured access to the Project site. The gate would meet the requirements of San Diego County Fire Code Section 96.1.503.6 for automatic operation with battery back-up. The gate would open immediately upon emergency vehicle strobe light activation from either direction of approach and would include a Knox Box key-operation switch.

2.2.7 Project Schedule / Phasing

Construction is expected to begin in second quarter 2013. It is anticipated that overall construction of the Project would take just over 11 months to complete, with crews working five days per week, eight hours per day.

Depending on local permit requirements, some activities may occur during evening, night, and/or weekend hours, due to the scheduling of system outages and/or construction needs.

Construction would commence following County of San Diego approval of permits and other entitlements, final engineering, and procurement activities.

2.2.8 Trails

No existing or planned public recreational trails are identified onsite or in the immediate Project vicinity per the County's adopted *County of San Diego Regional Trails Plan*; however, the Project site is bordered to the south by the Anza-Borrego Desert State Park, which does contain a number of public recreational trails.

2.3 General Plan Land Use Designations and Zoning

General Plan land use designations and zoning for the affected parcels are given in Table 1, below. No changes to either the existing General Plan land use or zoning are proposed with the Project.

TABLE 1
EXISTING GENERAL PLAN LAND USE / ZONING / REGIONAL CATEGORY

Assessor Parcel Number	Approximate Acreage*	General Plan Land Use Designation	Zoning	Regional Category
253-390-57	280*	(RL-80) Rural Lands	General Rural Use (S92) "D" Setback Designator / "G" Building Height Designator No Special Area Regulations	Rural Lands
253-390-58	160*	(RL-80) Rural Lands	General Rural Use (S92) "D" Setback Designator / "G" Building Height Designator No Special Area Regulations	Rural Lands

* The Project would be limited to approximately 336.4 acres on the two affected parcels which total 440 acres.

2.3.1 Anticipated Permits and Agency Approvals Required

The County of San Diego will act as the Lead Agency under the requirements of CEQA. Approval from the County of San Diego would be required for grading and construction permits, as well as for a right-of-way encroachment permit, if applicable, prior to commencement of ground-disturbing activities. The anticipated permits and approvals required are listed in Table 2 in the general order in which they would be obtained.

TABLE 2
APPROVALS AND PERMITS ANTICIPATED

Permit/Approval	Approving Agency
Major Use Permit	County of San Diego – Department of Planning and Land Use
Air Quality Permit to Construct	Air Pollution Control District
National Pollutant Discharge Elimination System (NPDES) Permit	San Diego Regional Water Quality Control Board (RWQCB)
General Construction Storm Water Permit	RWQCB

2.4 Regulatory Framework

2.4.1 State of California Guidelines

The Project is subject to technical and environmental review pursuant to the California Environmental Quality Act (CEQA), in conformance with applicable regulatory guidelines established by the County of San Diego.

Appendix G of the CEQA Guidelines states that a project has the potential for a significant impact if it will:

- a) Have a substantial adverse effect on a scenic vista;
- b) Substantially damage scenic resources, including, but not limited to: trees, rock outcroppings, and historic buildings within a state scenic route;
- c) Substantially degrade the existing visual character or quality of the site and its surroundings; or,
- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views of the area.

In addition, CEQA Section 15064 (b) states "...the significance of an activity may vary with the setting ... an activity which may not be significant in an urban area may be significant in a rural area." This statement is applicable to the determination of the significance of a visual effect for the Project.

2.4.2 San Diego County Plans and Policies

San Diego County General Plan

The County of San Diego General Plan (General Plan) was adopted August 3, 2011 by the County Board of Supervisors. The General Plan is intended to provide guidance for the long-term development of San Diego County and includes various Elements that provide guidance for accommodating future growth while retaining or enhancing the County's rural character, its economy, its environmental resources, and its unique communities. Goals, policies and objectives are provided within each of the Elements to guide future land development and ensure consistency with the County's intended vision for the future of San Diego County. The applicable goals, objectives, and policies are identified below, and a discussion of Project consistency with such measures is included in Appendix A of this document.

The Guiding Principles of the General Plan are to:

- ☞ Support a reasonable share of projected regional population growth;
- ☞ Promote health and sustainability by locating new growth near existing and planned infrastructure, services, and jobs in a compact pattern of development;
- ☞ Reinforce the vitality, local economy, and individual character of existing communities when planning new housing, employment, and recreational opportunities;
- ☞ Promote environmental stewardship that protects the range of natural resources and habitats that uniquely define the County's character and ecological importance;
- ☞ Ensure that development accounts for physical constraints and the natural hazards of the land;
- ☞ Provide and support a multi-modal transportation network that enhances connectivity and supports community development patterns and, when appropriate, plan for development which supports public transportation;
- ☞ Maintain environmentally sustainable communities and reduce greenhouse gas emissions that contribute to climate change;

- ∞ Preserve agriculture as an integral component of the region's economy, character, and open space network;
- ∞ Minimize public costs of infrastructure and services and correlate their timing with new development; and,
- ∞ Recognize community and stakeholder interests while striving for consensus.

Chapter 3 - Land Use Element

Planning for Sustainability

Policies

- ∞ **LU-6.9 Development Conformance with Topography.** Require development to conform to the natural topography to limit grading; incorporate and not significantly alter the dominant physical characteristics of a site; and, to utilize natural drainage and topography in conveying storm water to the maximum extent practicable.

Semi-Rural/Rural Lands

Policies

- ∞ **LU-10.2 Development - Environmental Resource Relationship.** Require development in Semi-Rural and Rural areas to respect and conserve the unique natural features and rural character and avoid sensitive or intact environmental resources and hazard areas.

GOAL LU-12

Infrastructure and Services Supporting Development

Policies

- ∞ **LU-12.4 Planning for Compatibility.** Plan and site infrastructure for public utilities and public facilities in a manner compatible with community character, minimize visual and environmental impacts, and whenever feasible, locate any facilities and supporting infrastructure outside preserve areas. Require context sensitive Mobility Element road design that is compatible with community character and minimizes visual and environmental impacts; for Mobility Element roads identified in Table M-4, an LOS D or better may not be achieved.

Chapter 5 – Conservation and Open Space Element

Visual Resources

According to the Conservation and Open Space Element, a highway corridor generally includes the land adjacent to and visible from the vehicular right-of-way. A “scenic highway” may include “any freeway, highway, road, or other vehicular right-of-way along a corridor with considerable natural or otherwise scenic landscape.” A highway may be designated as “scenic” depending on how much of the natural landscape can be seen by travelers, the aesthetic quality of the landscape, and the extent to which development intrudes upon the traveler’s enjoyment of the view.

The Conservation and Open Space Element designates several roads as County Scenic Roads within the Project vicinity. Table 3, below, identifies the distance to the Project site and the potential visibility of the site from the roadway.

TABLE 3
DESIGNATED SCENIC ROADWAYS

Roadway	Distance to Project Site	Visibility of Project Site
State Highway 78 through the Anza-Borrego Desert State (18.2-mile segment – designated State Scenic Highway)	Approximately 3 miles north	Limited visibility due to distance to the site, travel speeds, and intervening topography which largely blocks visibility
State Highway 78 is designated as a County Scenic Highway from Wynola Road east to the Imperial County line (excluding the portion that traverses the Anza-Borrego Desert State Park)	Not Applicable	Not Applicable
Old Overland Stage Route (S2) from the Imperial County line north to State Route 78 (County Scenic Highway)	Approximately 14 miles west/southwest at nearest point	Project site not visible due to distance, combined with intervening topography
S22 from State Route 79 east to the Imperial County line (County Scenic Highway)	Approximately 13 miles north/northwest at nearest point	Project site not visible due to distance, combined with intervening topography

Goal COS-11

- ∞ **Preservation of Scenic Resources.** Preservation of scenic resources, including vistas of important natural and unique features, where visual impacts of development are minimized.

Policies

- ∞ **COS-11.1 Protection of Scenic Resources.** Require the protection of scenic highways, corridors, regionally significant scenic vistas, and natural features, including prominent ridgelines, dominant landforms, reservoirs, and scenic landscapes.
- ∞ **COS-11.2 Scenic Resource Connections.** Promote the connection of regionally significant natural features, designated historic landmarks, and points of regional historic, visual, and cultural interest via designated scenic corridors, such as scenic highways and regional trails.
- ∞ **COS-11.3 Development Siting and Design.** Require development within visually sensitive areas to minimize visual impacts and to preserve unique or special visual features, particularly in rural areas, through the following:
 - Creative site planning;
 - Integration of natural features into the project;
 - Appropriate scale, materials, and design to complement the surrounding natural landscape;
 - Minimal disturbance of topography;
 - Clustering of development so as to preserve a balance of open space vistas, natural features, and community character; and,
 - Creation of contiguous open space networks.
- ∞ **COS-11.5 Collaboration with Private and Public Agencies.** Coordinate with the California Public Utilities Commission, power companies, and other public agencies to avoid siting energy generation, transmission facilities, and other public improvements in locations that impact visually sensitive areas, whenever feasible. Require the design of public improvements within visually sensitive areas to blend into the landscape.
- ∞ **COS-11.7 Underground Utilities.** Require new development to place utilities underground and encourage “undergrounding” in existing development to maintain viewsheds, reduce hazards associated with hanging lines and utility poles, and to keep pace with current and future technologies.

GOAL COS-13

- ∞ **Dark Skies.** Preserved dark skies that contribute to rural character and are necessary for the local observatories.

Policies

- ∞ **COS-13.1 Restrict Light and Glare.** Restrict outdoor light and glare from development projects in Semi-Rural and Rural Lands and designated rural communities to retain the quality of night skies by minimizing light pollution.
- ∞ **COS-13.2 Palomar and Mount Laguna.** Minimize, to the maximum extent feasible, the impact of development on the dark skies surrounding Palomar and Mount Laguna observatories to maintain dark skies which are vital to these two world-class observatories by restricting exterior light sources within the impact areas of the observatories.
- ∞ **COS-13.3 Collaboration to Retain Night Skies.** Coordinate with adjacent Federal and State agencies, local jurisdictions, and tribal governments to retain the quality of night skies by minimizing light pollution.

Air Quality, Climate Change, and Energy

GOAL COS-14 – Sustainable Land Development

Policies

- ∞ **COS-14.4 Sustainable Technology and Projects.** Require technologies and projects that contribute to the conservation of resources in a sustainable manner, that are compatible with community character, and that increase the self-sufficiency of individual communities, residents, and businesses.

San Diego County Zoning Ordinance

Portions of the County Zoning Ordinance that may affect the assessment of visual impacts are generally zoning overlay designators. Relevant designators include:

- ∞ B – Community Design Review Area
- ∞ D – Design Review Area
- ∞ G – Sensitive Resource
- ∞ H – Historic/Archaeological Landmark or District
- ∞ J – Special Historic District

8 S – Scenic Area

The Project site is subject to the “G” Designator for building height and the “D” Designator for setbacks. No other Designators apply to the Project or other associated lands affected by Project-related infrastructure improvements.

3.0 Visual Environment of the Project

3.1 Project Setting

3.1.1 Surrounding Land Uses

The Project area is located within the Anza-Borrego Desert region of northeastern San Diego County. The Anza-Borrego Desert area is part of the larger Colorado Desert.

The Project site is located approximately 4.4 miles to the southeast of the community of Ocotillo Wells, a rural desert community offering limited residential or commercial uses. A number of trailer parks and small commercial uses are present in areas along State Highway 78. Points of interest within the community include the Anza Borrego Desert State Park and Anza Borrego Desert State Wilderness Area, generally located to the north, west, and south of Ocotillo Wells. In addition, the Ocotillo State Vehicular Recreation Area is located just north across State Highway 78 and provides off-road vehicular recreational opportunities. Refer to Figure 2, Aerial Photograph, and Figures 6 and 7 which show onsite and offsite conditions.

The Ocotillo Airport is located approximately 4.5 miles to the northwest of the Project site, across State Highway 78; however, the site is not located within the Airport Influence Area boundary, and therefore, no height or other such restrictions relative to the Airport would apply. Approximately 3.5 miles to the south of the Project site, off of Split Mountain Road, lies the (former) U.S. Gypsum Company Quarry and associated railway previously used to transport the materials from the quarry site.

The Project site is located approximately 48 miles to the southeast of Palomar Observatory. The Laguna Mountain Observatory lies approximately 24 miles to the southwest.

Lands within the Project vicinity are largely undeveloped. Several private land ownerships further to the west and northwest support limited rural residential uses (single-family residences or mobile homes); refer to Figure 2, Aerial Photograph. The Project site is bordered directly to the south by the Anza Borrego Desert State Park, which also extends further to the north (across State Highway 78), west (across Split Mountain Road), and to the south. Directly adjacent to the north and east are private land ownerships that are presently undeveloped. The Imperial County border parallels the eastern and southern boundaries of the Project site.

3.1.2 Project Site

The two parcels affected by the Project are generally undeveloped. Until recently, the site supported two mobile homes, along with a number of supporting outbuildings of limited square footage that were formerly utilized largely for storage. One groundwater well (housed in a small structure for security purposes) is present within this area. The structures were all in a severely deteriorated, abandoned state and were demolished and removed from the site in 2012; however, the well house was not destroyed and remains on the site. The well is not currently in use. Refer to Figure 5, Photo Location Map, and Figures 6 through 7 which show existing onsite and offsite conditions.

The Project area and the Borrego Valley in general are underlain by Quaternary alluvium. Soils on the vast majority of the Project site are mapped as Rositas fine sand, with areas in the southwestern and northeastern portion of the site mapped as sloping gullied land, and Rositas fine sand hummocky.

Onsite vegetation largely consists of Sonoran mixed woody scrub, Colorado desert wash scrub, stabilized and partially stabilized dunes, and desert sink scrub. A large wash (generally dry for the majority of the year) traverses the site from northeast to southwest.

Although the topography of the Project area is generally flat, there are a series of low dune ridges with hummocky areas throughout. The ground surface slopes mildly to the northeast. Onsite elevations within the proposed development area range from approximately 51 feet above mean sea level (amsl) to 93 feet amsl. No steep slopes, hillsides, or areas prone to landslide or subsidence occur onsite within the proposed MUP area.

The average January low temperature for the Ocotillo Wells area is 38° Fahrenheit; the average July high temperature is 108° Fahrenheit. Average annual rainfall for the area is approximately 6.3 inches.

The existing San Felipe Substation is located approximately 1.6 miles to the northwest of the Project site (at its closest point), adjacent to Split Mountain Road; refer to Figure 2, Aerial Photograph.

TABLE 4
LANDS POTENTIALLY AFFECTED BY THE PROJECT

APNs Affected	Approx. Acreage (in acres)	General Location	Current Onsite Land Use / Characteristics	Surrounding Land Uses	Future Facilities Considered
253-390-57	280*	East of Split Mountain Road	Vacant / Sonoran creosote brush scrub, desert saltbrush scrub, Sonoran wash scrub, and unvegetated playa	North: Undeveloped; East: APN 253-390-58; South: Anza Borrego Desert State Park; West: Vacant Land, Limited SF Rural Residential and Agricultural Uses	Solar Panels / Associated Transmission Facilities
253-390-58	160*	East of Split Mountain Road	Vacant / Sonoran creosote brush scrub, desert saltbrush scrub, Sonoran wash scrub, and unvegetated playa / Developed (Trailer and Supporting Outbuildings)	North: APN 253-390-57; East: Imperial County, Vacant; South: Imperial County / Anza Borrego Desert State Park; West: APN 253-390-57	Solar Panels / Associated Transmission Facilities

* The Project would be limited to approximately 336.4 acres on the two affected parcels which total 440 acres.

3.1.3 Visual Quality Definitions

Visual quality is affected by the aesthetic characteristics of a particular area. Such aesthetic elements may include physical characteristics, as well as the perception of the viewer. Physical characteristics influencing the visual quality of an area may include such features as topography, landform, natural vegetation, water bodies, visual diversity, and visible coloring. Viewer perception is generally influenced by vividness, intactness, harmony, visual integrity, adjacent scenery, and/or visual unity. These elements all influence the overall evaluation of the quality of a particular view.

High Visual Quality

Areas with high visual quality may offer physical characteristics such as varying vertical relief; established natural vegetation with visually pleasing form, color, texture or pattern; water features; or, other elements that create a visually unified landscape. Particular views with high

visual quality may include those with distinct focal points or patterns; enhanced or existing natural scenery; compatibility with the character of the surrounding landscape; and/or, a unique visual setting within the surrounding area.

Moderate Visual Quality

Moderate visual quality is generally considered to be represented by views that are interesting, but not visually exceptional with regard to landforms or other physical characteristics. Such views may consist of dominant types of vegetation; water features; colors within the landscape; or, other elements that visually unify a particular view or landscape. Contributing factors may include a varied composition that includes visual patterns created by landscape elements; enhancement of views from adjacent scenery; and/or, a visual setting that is distinguishable from, as well as visually similar to, views within the surrounding area.

Low Visual Quality

Low visual quality may be represented by areas with limited or no existing landforms or changes in topography; sparse or indiscernible vegetation types, due to density; absence of water features; monotonous color palettes; or, limited visual elements of varying visual interest. Visual quality may be considered to be low if views are varied, but visually disconnected; lack perceivable visual patterns; are adjacent to views that devalue the existing scenic quality; or, do not generally represent a visual setting that is common and/or valued within the surrounding area.

3.2 Project Viewshed

The viewshed is generally the area that is visible from an observer's viewpoint and includes the screening effects of intervening vegetation and/or physical structures. Viewsheds may occur from designated scenic viewpoints or from singular vantage points where an unobstructed view of visual components within the landscape exists. The viewshed is composed of such elements as topography and natural land features (i.e., hillsides, mountains) and other physical features within the landscape, such as buildings, vegetation, water features. Potential visual impacts within the viewshed may be affected by distance of the viewer from a site, the frequency and length of views, the personal perception of the viewer, and physical and/or atmospheric conditions at the time viewing occurs.

The Project site is located along the valley floor which is visible from a variety of vantage points within the surrounding mountains. As such, the viewshed is generally defined by the

surrounding mountainous topography that encircles the valley floor. Although this area is expansive, consideration of this viewshed provides the most comprehensive (largest) and conservative (worst-case) estimate of the area that could potentially be affected by the proposed Project. Refer to Figure 8, Viewshed/Landscape Units Map, which shows the viewshed in the area surrounding the Project.

Within the viewshed, varied views of the valley largely occur from vehicles as they descend (or ascend and look back to the valley) along the roadways that lead to and from Ocotillo Wells (State Highway 78, Borrego Valley Road) passengers in vehicles traveling within the Anza Borrego State Park, and visitors utilizing the trails or other recreational facilities within the Park; and, passengers in vehicles traveling along area roadways. The viewshed includes the developed area of Ocotillo Wells and the surrounding, low-density development and undeveloped lands along the valley floor; refer to Figure 8. Due to the generally flat topography of the valley floor and the limited, low-lying vegetation typical of a desert environment, few elements within the landscape restrict views across the expansive valley from surrounding vantage points within the viewshed; however, distance from the object being viewed and intervening geological features have the potential to restrict or significantly reduce views.

Figure 8, Viewshed/Landscape Units Map, shows the general limits of the viewshed and the landscape units considered within the viewshed as part of this analysis. To characterize the visual pattern elements that occur within the Project viewshed, a number of key view locations across the valley were identified and representative photographs taken. The locations of these representative photos are identified in Figure 9, Key Viewpoint Locations, and are shown in Figures 10 through 14. Key viewpoints are described in detail in Section 5.2, Key Views. Key vantage points within the viewshed offering views across the valley occur from State Highway 78 to the north of the Project site (Figure 10); Split Mountain Road to the west/northwest of the Project site (Figure 11); and, the Anza-Borrego Desert State Park to the south and west of the Project site (Figure 12), as discussed in greater detail below.

Additionally, several roadways officially designated as scenic roads occur within the Project viewshed. State Scenic Highways are highways that are either officially designated by the California Department of Transportation (Caltrans) or are eligible for designation. This statewide system of scenic highways is part of the Master Plan of State Highways Eligible for Official State Designation as Scenic Highways. Designation of a highway as “scenic” is dependent upon the visibility of the natural landscape to travelers, the aesthetic quality of the landscape, and the extent to which development intrudes upon the traveler’s enjoyment of the view. A highway’s designation may change from “eligible” to “officially designated” if a local

jurisdiction adopts a scenic corridor protection program, applies to Caltrans for scenic highway approval, and Caltrans subsequently designates the road as an official State Scenic Highway.

With regard to the Project, no designated scenic roadways are located directly adjacent to the site; however, the Project would potentially be briefly visible from limited vantage points along State Highway 78, located approximately three miles to the north of the Project site. State Highway 78 is designated as a State Scenic Highway through the Anza-Borrego Desert State Park (18.2-mile segment). Additionally, State Highway 78 is designated as a County Scenic Highway from Wynola Road east to the Imperial County line (excluding the portion that traverses the Anza-Borrego Desert State Park).

In addition, S2 from the Imperial County line north to State Route 78 and S22 from State Route 79 east to the Imperial County line are also designated as official County Scenic Highways; however, due to distance from the Project site, combined with intervening topography, views of the Project are not anticipated to occur from these roadways.

3.3 Landscape Units

A landscape unit is an area that can generally be defined by visual and physical characteristics and may be composed of a limited area (i.e., meadow) or a larger area (i.e., portion of a mountain range). The overall boundaries of a landscape unit may generally be defined by topography, natural vegetation, architectural design, landforms, or similar types of land uses. Each landscape unit can be described individually and as varying from other adjacent landscape units. Each landscape unit is a portion of the regional landscape that often corresponds to a place or district that is commonly known among local viewers.

Several landscape units that may potentially be affected by construction of the proposed facilities have been identified. These landscape units are shown in Figure 8, Viewshed/Landscape Units Map, and are further described below.

3.3.1 Landscape Unit #1 – Lower Borrego Valley

Landscape Unit #1 is the floor of the Lower Borrego Valley within which the Project site is located. The valley, a broad, flat desert pan, is generally characterized by undeveloped lands and lands with very low-density scattered development (typically one- to two-story single-family residential uses) on large-acre parcels. This Landscape Unit is generally bounded to the north, west and south by mountains rising from the valley floor of varied elevation and geological features. This Landscape Unit supports established vegetation typical of the desert

environment, including low-lying desert saltbush scrub and stabilized and partially stabilized desert dunes, with sparse groundcover and annual grasses.

3.3.2 Landscape Unit #2 – Mountains

Landscape Unit #2 consists of the mountains that generally encircle the valley in which the community of Ocotillo Wells and the Project site are located. Within the viewshed, this Landscape Unit is generally defined by the mountains to the north, west, and south of the Project site and includes a number of well-known geological features recognized by locals and visitors for both their visual qualities and recreational opportunities. Such geologic features include the Fish Creek Mountains to the south, including Split Mountain; West and East Buttes to the northwest; Font's Point to the northwest; the Vallecito and Pinyon Mountains to the west/southwest; and, a range of mountains to the north which includes Villager Peak, Rabbit Peak, and Buck Ridge further to the north/northwest. The mountains within this Landscape Unit are generally located within the larger Anza-Borrego Desert State Park and, from the upper reaches, offer vantage points where a 360-degree panorama of portions of the Anza-Borrego Desert is afforded.

3.3.3 Landscape Unit #3 – Ocotillo Wells

Landscape Unit #3 consists of the developed areas along the valley floor which comprise the unincorporated community of Ocotillo Wells. This Landscape Unit is generally defined by the “spines” of State Highway 78 and Split Mountain Road, bordered by undeveloped lands of the Anza Borrego Desert and the Anza-Borrego Desert State Park to the north, west, and south.

The commercial “core” of the Ocotillo Wells community offers a several restaurants (permanent and/or mobile), a retail store offering miscellaneous goods and services in support all-terrain vehicle (ATV) recreational activities within the area (e.g. Ocotillo Wells State Vehicular Recreation Area across SR 78), and several limited commercial offices; the Ocotillo Airport to the north of SR 78; and, several pockets of residential uses (largely mobile home parks) that are present in the western/southwestern portions of the community to the south of SR 78; refer also to Figure 2, Aerial Photograph.

Structural elements associated with this Landscape Unit are generally low-lying, one-story buildings with simple architectural features and colors. Limited natural vegetation or manicured landscaping is visible, and topography is generally flat.

3.3.4 Landscape Unit #4 – Ocotillo Wells State Vehicle Recreation Area

Landscape Unit #4 consists of the Ocotillo Wells State Vehicle Recreation Area. This Landscape Unit is generally defined by State Highway 78 to the south, the Ocotillo Airport to the west, and the flatter desert lands to the north and east. The Recreation Area is a well-known destination for both area locals and tourists seeking off-road vehicle recreational activities and is a recognizable visible element within the Ocotillo Wells community and the valley landscape. The area supports various locations where free camping is available, and numerous trails exist for riders of a variety of skill levels.

As the Recreation Area is intended for ATV use, natural vegetation is limited. The terrain largely consists of rolling sand dunes and recreational trails; however, a number of unique geological features are visible within the park and include Blowsand Hill, Devils Slide, Shell Reef, Gas Dome, and Pumpkin Patch, which are popular among ATV riders. These geologic features create visual variety along the otherwise flat lands that dominate the valley floor.

3.3.5 Other Landscape Units

Other visible and locally recognized landscape units occur within the valley which include the Salton Sea, small-scale communities sporadically clustered around the Salton Sea, and the expansive lands utilized for agricultural purposes to the south and east of the Salton Sea that offer a stark visual contrast to the surrounding arid lands of the desert. Although these features offer unique visual components, these landscape units are distanced from the Project site and outside of the anticipated viewshed; refer to Figure 8, Viewshed/Landscape Units Map. Although these landscape units are recognized as contributing to the overall character of the area, views of the Project site would not be afforded from such locations, and therefore, they were not analyzed further herein for their potential to be affected by the proposed Project.

4.0 Existing Visual Resources and Viewer Response

4.1 Existing Visual Resources

The lands affected by the Project are generally lacking in significant visual resources. The parcels do not contain any County-defined steep slopes (defined as having a slope with a natural gradient of 25 percent or greater and a minimum rise of 50 feet) or other significant topographical features. Although the topography of the Project area is generally flat, there are a series of low dune ridges with hummocky areas, particularly in the northern portion of the site. Refer to Figure 2, Aerial Photograph, and Figures 5 and 6 which show the existing onsite conditions.

No significant drainage channels occur onsite. Drainage within an unnamed wash begins offsite near Split Rock at the southern edge of the Harper Flat within the Anza-Borrego Desert State Park. From the Harper Flat, the wash flows north through Harper Canyon before following the Lower Borrego Valley southeastward and past the northern Project site boundary. Near the Project site, the unnamed wash is an incised channel with vertical clay banks and a sand bottom. Due to the nature of the desert landscape, no rock outcroppings are present on any of the lands affected by the Project.

The subject site supports minimal vegetative habitat of aesthetic value. Vegetation on the affected parcels largely consists of desert saltbush scrub and stabilized and partially stabilized desert dunes with sparse groundcover. Some native wildflower species may be present depending on the time of year.

4.1.1 Visual Character/Visual Quality

The dominant visual character of the Project site is that of generally level topography with typical desert saltbush scrub vegetation. Areas of varied topography and desert dunes occur within the interior; however, from offsite public vantage points, this characteristic is not readily noticeable.

The two parcels affected by the Project are generally vacant. As stated above, two mobile homes, along with a number of supporting outbuildings of limited square footage (formerly utilized largely for storage), were recently demolished and removed from the site. One

groundwater well/well house remains present within this disturbed area; however, the well is not presently in use.

Landscape Unit #1 - Lower Borrego Valley

Landscape Unit #1 generally consists of the portion of the valley floor on which the Project site lies, encircled by the surrounding mountains. Within the Ocotillo Wells area, the valley floor is generally characterized by undeveloped lands, lands utilized for recreational purposes, and lands with low-density development. This Landscape Unit supports expanses of natural vegetation typical of the desert environment, including low-lying scrub, sparse groundcover, and annual grasses.

As the majority of lands within the valley are generally undeveloped, few built components within this Landscape Unit contribute to a sense of bulk or mass. Visual color is generally unvaried and consists of earthtoned, natural components (sand, native grasses, etc.). Additionally, as much of the vegetation and topography are similar throughout this area, landscape components do not offer strong, visually distinctive patterns to viewers, particularly when viewed at a distance, and a memorable visual impression is generally not created.

The landscape is largely free from encroachment of competing visual elements, due to the nature of the topography and existing vegetation, and is therefore visually intact. A sense of visual unity is achieved, as components combine to form a generally visually coherent pattern.

Landscape Unit #2 - Mountains

Landscape Unit #2 consists of the mountains that generally encircle the valley in which the community of Ocotillo Wells and the Project site are located. Vegetation is generally low-lying, limited, and typical of the arid desert environment.

The topography of this Landscape Unit offers visual forms with varied visual bulk, mass, and scale. Colors are also varied, based upon viewing distance to the forms, sunlight and time of day, and texture of the surfaces. The mountains create a sense of visual dominance within the valley and offer a visually diverse pattern of elements within the landscape. This Landscape Unit supports landscape components that combine in distinctive visual patterns and provide topographical and visual contrast to other surrounding lands and the valley floor.

This Landscape Unit offers a sense of vividness and creates a memorable visual impression through varied geologic forms, particularly when influenced by sunlight. The mountains offer a unified and generally coherent visual pattern with few encroaching elements as they rise from the valley floor.

Landscape Unit #3 - Ocotillo Wells

Landscape Unit #3 consists of the developed areas along the valley floor which comprise the unincorporated community of Ocotillo Wells. Structural elements associated with this Landscape Unit are generally low-lying, one-story buildings that do not represent elements of significant mass, bulk, or scale within the landscape. Colors are generally of neutral hues, with limited visual diversity or texture, or notable architectural features. Limited natural vegetation or manicured landscaping is visible, and topography is generally flat.

The features of the built elements within the community generally do not create a memorable visual pattern or impression, and instead represent fairly utilitarian components. As the “commercial core” is surrounded by largely undeveloped lands, it does not create a sense of unity with surrounding landscape components or contribute to a harmonious visual pattern.

Landscape Unit #4 - Ocotillo Wells State Vehicle Recreation Area

Landscape Unit #4 consists of the Ocotillo Wells State Vehicle Recreation Area. Natural vegetation within this Landscape Unit is limited and the terrain largely consists of rolling sand dunes and recreational trails. As stated above, a number of unique geological features are visible within the park (e.g. Blowsand Hill, Devils Slide, etc.). As such, this Landscape Unit offers a changing visual landscape, due to variations in topography and geologic conditions. Views of the mountains occur in the background.

Although much of the vegetation is similar throughout the Recreation Area, landscape components within certain areas of the park offer visually distinctive and contrasting patterns to viewers. Limited elements with visual bulk, dominance, or scale occur within this landscape. Lands within this Landscape Unit are generally similar with regard to color, due to the vegetation and ground surface.

The landscape has a moderate degree of intactness, as it is generally free from competing visual elements. In addition, a sense of visual unity is evident, as the landscape components join together to form a coherent visual pattern.

Landscape Unit #5 – Ocotillo Airport

Landscape Unit #5 consists of the Ocotillo Airport, operated by the County of San Diego. The Airport represents a recognizable visual component within the landscape. The limits of this Landscape Unit are generally defined by the function of the Airport and although the Airport is surrounded by vacant lands to the west, north, and east, the flat area that supports the two

runways creates a visual component within the landscape; State Highway 78 borders the Airport to the south.

The Airport is unmanned and there is no control tower or any other supporting structures associated with Airport operations. Therefore, the Airport does not offer visual elements of significant mass, bulk, or scale within the landscape, and the landscape is of limited visual diversity or texture with no notable architectural features.

The airport does not create a memorable visual pattern or impression within the landscape; however, due to the location of the Ocotillo Airport and the largely undeveloped lands that surround it, the Airport creates a sense of unity with adjacent landscape components.

4.2 Viewer Response

Viewer response is based on both viewer sensitivity and viewer exposure. These elements influence how a viewer may potentially respond to a change in the visual landscape, particularly with regard to development of a site from a generally undeveloped condition. Viewer response varies based upon the type of viewer and the characteristics of the visual environment that would ultimately be affected (i.e., urban versus rural environment, established large-scale commercial area versus low density residential uses, etc.). Viewer response is largely influenced by viewer sensitivity and viewer exposure, as described in greater detail below.

4.2.1 Viewer Sensitivity

Viewer sensitivity to a change in the visual environment can be influenced by a number of factors, including the awareness of the viewer, personal interest in a particular visual resource, and/or viewer activity during the time that views of a resource occur (i.e., vehicle driver versus passenger, active versus passive viewing). In addition, the particular goals or values of a community can influence the sensitivity of viewers to a particular site, land area, or viewshed. Viewer sensitivity may vary between those with a vested interest in a community (i.e., residents) versus those traveling through an area with little or no knowledge of the community or existing visual landscape. Based on these conditions, viewer sensitivity can be assigned a value of low, medium, or high.

It is likely that community members would be more sensitive to the Project than would those who experienced Ocotillo Wells as a tourist. In addition, viewer sensitivity may be higher among those who would experience views of the site more frequently, such as area residents to the south of the site. As views of the Project components would also vary due to distance from

the site, as well as travel speed along area roadways and the degree to which one chooses to make an effort to view the site (e.g. turning of one's head), viewer sensitivity to a visual change within the landscape occurring as a result of the Project would further be influenced.

4.2.2 Viewer Groups

Viewer groups would mainly consist of those individuals traveling north/south along Split Mountain Road, due to the location of the site and surrounding lands that are largely undeveloped. Additional viewer groups may include visitors to the Ocotillo Airport (aerial view), as well as travelers along other public roadways in the area where views occur at a higher elevation than the Project site; however, such views would be distanced from the Project site. Visitors to the Anza-Borrego Desert State Park to the south, west, and north would also have the potential to experience views to the site from varied vantage points within the Park; however, similarly, these views would occur at a distance from the proposed development area.

Additional viewer groups may include residents and/or occupants viewing the Project site from limited surrounding residential uses to the west/northwest; however, such views of the Project from these vantage points would generally occur from privately-owned properties and not public viewpoints. Views from these private ownerships would generally occur at a distance from the Project and would be reduced and/or restricted due to distance, limited differences in elevation, and intervening vegetation.

4.2.3 Viewer Exposure

A limited number of public roadways are present in the area surrounding the Project site. Potential views into the Project site from vehicles traveling along Split Mountain Road would be restricted, due to distance to the Project site, height of the Project components, travel speeds, and the angle of the view with respect to the viewer (i.e., forward-looking versus turning one's head and looking back towards the subject property). Views of the site from other public roads at greater distances (i.e., State Route 78, Broadway, etc.) may also occur, but would also be limited.

In determining the potential exposure of each viewer group, several factors are considered. These include the overall number of viewers experiencing visual changes to the resource as the result of the proposed development; how long views would last; the anticipated speed at which viewers would be traveling; and, the relation and distance of the viewer to the particular site.

Table 5, Viewer Groups and Anticipated Exposure, summarizes the anticipated viewer groups and the potential viewing experience of each.

TABLE 5
VIEWER GROUPS AND ANTICIPATED EXPOSURE

Anticipated Viewer Group	Number of Anticipated Viewers	Key Views	Approximate Distance to the Project Site	Anticipated Views with Project Implementation	Sensitivity	Duration of View
Drivers along State Highway 78	Estimated 1,000 to 2,000 people per day	#1	Far Distance / Approximately 3.0 miles from northern MUP boundary	Obscured or highly restricted, intermittent views of solar panels and associated infrastructure	Low	Varied / Several seconds
Drivers along Split Mountain Road / Old Kane Springs Road (San Felipe Substation)	Estimated less than 500 people per day	#2	Close to Moderate Distance / Approximately 0.55 to 1.4 miles from westerly MUP boundary	Intermittent views of solar panels and associated infrastructure	Low to Medium	Varied / Estimated 0-10 seconds
Anza-Borrego Desert State Park	Estimated 100 to 500 people per day (depending on season and viewing location)	#3	Varied / Adjacent to Project site to the south / Majority of Park area located approximately 2.3 miles west	Intermittent views of solar panels and associated infrastructure	Low to Medium	Varied
Drivers along Split Mountain Road	Estimated less than 500 people per day	#4	Close to Moderate Distance / Approximately 0.55 to 1.4 miles from westerly MUP boundary	Intermittent views of solar panels and associated infrastructure	Medium	Varied / Estimated 0-60 seconds
Ocotillo State Vehicle Recreation Area	Estimated 100-200 people per day	N/A	Far Distance / Approximately 3.0 miles from northern MUP boundary	Project site obscured from view	Low	Project site obscured from view

TABLE 5, CONTINUED

Anticipated Viewer Group	Number of Anticipated Viewers	Key Views	Approximate Distance to the Project Site	Anticipated Views with Project Implementation	Sensitivity	Duration of View
Existing Railway from U.S. Gypsum Company Quarry	Estimated 20-30 people per day	#5	Far Distance / Approximately 3.5 miles from northern MUP boundary	Project site largely obscured or obscured from view	Low	Varied

4.2.4 Viewer Awareness

Viewer response is affected by the degree to which a viewer is receptive to visual details, character and quality of the surrounding landscape. A viewer's perception is affected by his/her activity and the degree to which he/she actively participates in noticing a change in the visual environment.

Viewer awareness to potential visual changes in the setting that may occur with the Project would be varied. A viewer would first need to be in a location within the surrounding area where the Project site was visible (e.g. from a higher elevation), then actively notice that a change in the visual landscape has occurred. Viewer awareness would also vary between local residents and those who are experiencing the area as a tourist, wherein the local residents would likely be more aware of a change in the visual environment. In addition, viewer awareness would also vary due to distance from the proposed solar facilities, as views occurring at a greater distance would diminish the visibility of the Project components within the visual landscape.

5.0 Visual Impact Assessment

5.1 Guidelines for Determining Significance

The California Environmental Quality Act (CEQA) Guidelines define “environment” to include “objects of...aesthetic significance (Section 15360).” As such, the County of San Diego has identified thresholds of significance to assess potential impacts resulting from proposed development.

The following significance guidelines are intended to provide guidance in the evaluation of whether a significant impact to visual resources would occur as a result of project implementation. A project will generally be considered to have a significant effect if it proposes any of the following:

- ⌘ Introduction of features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color, architecture, building materials, etc.) or by being inconsistent with applicable design guidelines;
- ⌘ Removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area, including but not limited to landmarks (designated), historic resources, trees, and rock outcroppings;
- ⌘ Substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, a trail within an adopted County or State trail system, a scenic vista or highway, or a recreational area; or,
- ⌘ The project would not comply with applicable goals, policies or requirements of an applicable County Community Plan, Subregional Plan, or Historic District’s zoning.

As four solar technologies are being considered by the Project applicant, this Visual Analysis has been prepared to analyze a worst-case scenario with regard to the potential to have an effect on the existing visual environment. As stated earlier, the layout of the solar panels and the supporting components (e.g. substation, operations and maintenance building, equipment pads, etc.) would be similar for the four development scenarios; however, the Dual-Axis Tracker Units would have a height of approximately 30 feet as measured from the ground, thereby having the greatest potential to be visible from surrounding public vantage points within the landscape or to change the existing character or appearance of the visual landscape (most

visually impactful). As such, the Visual Analysis is focused on evaluation of the Project site if developed with the Dual Axis Tracker Units, as opposed to the other three solar technologies considered.

5.2 Key Views

Several key views of the Project site from surrounding public vantage points were identified for the Project; refer to Figure 9, Key Viewpoint Locations, and Figures 10 through 14, which illustrate existing and proposed views of lands affected by the Project. As described below, views of the Project from these vantage points would be limited by distance from the site, travel speeds, angle of the view (i.e., looking directly to the site or turning one's head to look back to the site), topography and/or ground elevation as compared to the Project site, and intervening natural vegetation or development.

5.2.1 Key View #1 - State Highway 78

State Highway 78 is located approximately three miles to the north of the Project site and serves as the major transportation route to Ocotillo Wells, and to the Salton Sea and Imperial County to the east; refer to Figure 10, Key View 1 (Visual Simulation) – View from State Highway 78 (Public View), which shows the existing view from the roadway. Viewers from this location would mainly consist of passengers in vehicles traveling in either direction along State Route 78. As mentioned previously, State Route 78 is designated as a State Scenic Highway through Anza Borrego State Park. State Highway 78 is designated as a County Scenic Highway from Wynola Road east to the Imperial County line (excluding the portion that traverses the Anza-Borrego Desert State Park).

Views are generally defined by the surrounding mountains to the north, west, and south, and are largely dominated by the expansive valley floor. Varied geological and topographical features are visible within the middleground. In addition, limited low-lying scrub vegetation provides minimal screening effects. The existing visual landscape does not offer memorable landscape components or distinctive visual patterns, and therefore, visual quality and character are considered to be low.

From this vantage point, views of the Project site would largely be blocked due to intervening topography. Views largely consist of low-lying natural vegetation and relatively level topography in the foreground, with mountains of varying elevation in the background. Lands to the south of the road within the vicinity of the site vary topographically. Adjacent to the south side of the highway and spanning further to the south are a series of low-lying slopes that block

views into the Project site. Additionally, the highway lies approximately three miles to the north of the site. Therefore, if intermittent views of the Project site were afforded from other vantage points along the roadway within the vicinity of the Ocotillo Wells community, they would be brief and minimized by distance as well as reduced by established natural vegetation along the roadway, intervening topography, and travel speeds.

5.2.2 Key View #2 – Split Mountain Road / Existing Substation

Key View #2 is the view of the Project site looking southeast to the site from Split Mountain Road adjacent to the existing San Felipe Substation; refer to Figure 11, Key View 2 (Visual Simulation) – View from Split Mountain Road/Existing Substation, which shows existing and proposed views from this vantage point. Viewers from this location would mainly be passengers in vehicles traveling in either direction along Split Mountain Road.

Views from this vantage point occur at a distance (approximately two miles) from the Project site and are generally composed of views across the relatively level valley floor with low-lying vegetation. The mountains with varied geological and topographical features would be visible in the background. The existing visual landscape does not offer memorable landscape components or distinctive visual patterns, and therefore, visual quality and character are considered to be low to medium.

From this vantage point, views of the Project facilities would be obscured due to distance from the site, intervening topography, and natural vegetation; refer to Figure 11. The utility poles which lie within the existing SDG&E easement to the north of the site would be visible, and such views would not change with implementation of the proposed Project.

5.2.3 Key View #3 – Anza-Borrego Desert State Park

The Anza-Borrego Desert State Park borders the Project site to the south and extends further to the south, west, and north across the valley; refer to Figure 12, Key View 3 (Visual Simulation) – Anza-Borrego Desert State Park, which shows the existing and proposed views. Viewers from this location would mainly be passengers in vehicles traveling within the State Park, or visitors utilizing the trails or other recreational facilities within the Park.

Views within the Park are generally defined by the surrounding mountains to the west, south and north/northwest. Varied topography and geological features are visible in the background

with expansive views of the valley floor in the middle ground. The developed areas of Ocotillo Wells, extensive undeveloped lands, and a variety of geological and topographical features are also visible from various locations within the Park.

Views from the Park would occur across the valley and would consist of developed areas within Borrego Springs, surrounding undeveloped lands, and the varying mountain ranges in the background. Although views of scenic value occur at various locations within the Park, due to distance and associated lack of visual detail or coherence of the landscape components, visual quality and character are reduced. Views from the Park are generally considered to be of low to medium visual quality and character.

Views of the PV solar panels and Project components from the State Park would be limited, due to the height and scale of the elements and other more visibly noticeable features within the landscape that would attract a viewer's attention. Although views of the Project site from locations within the Park would generally be uninterrupted when existing landforms or vegetation do not interfere, such views would occur at a moderate distance from Project site, thereby minimizing details within the landscape. As such views would occur at a distance from the site, installation of the solar panels and associated facilities would not significantly detract from or contrast with the existing visual character and/or quality of the community.

5.2.4 Key View #4 – Split Mountain Road

Key View #4 is the view of the Project site looking west along Split Mountain Road to the Project site; refer to Figure 13, Key View 4 (Visual Simulation) – Split Mountain Road, which shows existing and proposed views from this vantage point. Viewers from this location would mainly be passengers in vehicles traveling in either direction along Split Mountain Road.

Views from this vantage point occur at approximately 0.3 mile from the Project site and are generally composed of the valley floor with low-lying vegetation, with a variety of geological and topographical features in the background. The existing visual landscape does not offer memorable landscape components or distinctive visual patterns, and therefore, visual quality and character are considered to be low to medium.

From this vantage point, views of the Project site would be brief and intermittent, due to established natural vegetation along the roadway, travel speeds, and distance to the Project site. Although views to the site would change as one travels along the roadway, views of the solar panels from Key View #4 would be limited, due to the distance from the Project and the relative height and size of Project-related features. As such, views of Project features that would detract from or contrast with the existing visual character and/or quality of the area

would not occur. Viewer response to the visual change in the landscape is therefore anticipated to be minimal.

5.2.5 Key View #5 – Anza Borrego Desert State Park Looking North from Existing Railroad Line (near U.S. Gypsum Company Quarry)

Key View #5 is the view of the Project site looking north from along the existing railroad line that extends from the U.S. Gypsum Company Quarry for purposes of transporting the materials extracted from the quarry; refer to Figure 14, Key View 5 (Visual Simulation) – View from Anza-Borrego Desert State Park/Existing Railroad Line, which shows the existing and proposed views from this vantage point. Viewers from this location would mainly be passengers traveling north on the train as it leaves the Quarry or, similarly, passengers in vehicles traveling north along nearby Split Mountain Road (approximately 0.1 mile to the west of this vantage point).

Views from this vantage point occur at approximately 3.5 miles south of the Project site and are generally composed of the valley floor with low-lying vegetation, with varying geological and topographical features in the background. The existing visual landscape does not offer memorable landscape components or distinctive visual patterns, and therefore, visual quality and character are considered to be low to medium.

The existing railroad line generally runs north-south from the U.S. Gypsum Company Quarry and functions to transport the materials extracted out of the Borrego Valley for processing and/or commercial sale. As such, riders on the train would generally be employees of or visitors to the Quarry, and not the general public; however, as the rail line passes through portions of the Anza-Borrego Desert State Park, the train traverses public lands, and therefore, views from the train would be considered public views.

Views of the Project site would vary along the rail line and would largely consist of the upper portions of the PV solar panels, but would generally be highly restricted. Although the solar panels would be slightly visible within the landscape from this vantage point, as shown in Figure 14, such views would be intermittent and limited, due to the angle of view and viewing distance to the Project site, as well as minimal differences in elevation between the rail line and the site, travel speed, and intervening vegetation. Similar views would be experienced by passengers in vehicles traveling along Split Mountain Road in the vicinity of this vantage point.

Assessment of Visual Character and Visual Quality

5.2.6 Assessment of Visual Character

The Project setting offers a variety of natural landforms and vegetation, combined with a limited mixture of and single-family residential and RV uses, commercial and industrial uses, and agricultural lands; refer to Figure 2, Aerial Photograph. Parcels within the immediate area are generally larger in size, with smaller-acre parcels more common closer to the core of the Ocotillo Wells community, adjacent to State Highway 78.

The Project would change the composition of the visual pattern in the existing onsite setting. The onsite physical character (i.e. presence of native vegetation, colors, visual diversity) would be altered with installation of the solar panels and associated facilities; however, with consideration of varied views to the site from offsite properties and travelers along nearby public roadways (e.g. Split Mountain Road), the visual changes resulting from the Project would not dominate or substantially change the existing visual pattern of the area, nor would the Project incorporate elements that would substantially obstruct or diminish existing views; refer also to Figures 10 to 14 which illustrate the character of the Project site and surrounding area from public vantage points. Additionally, the Project has been designed to minimize grading requirements (estimated 20,000 c.y. balanced cut and fill of grading and 350,000 c.y. for removal and recompaction), allowing the resulting topography to largely reflect the existing (generally) flat character of the site.

As previously stated, similar industrial and commercial uses exist in the surrounding area and support structural elements of similar or greater size, density, height, and/or appearance (i.e. San Felipe Substation, commercial uses along State Highway 78, clustered RV uses, etc.). As visibility of the site would be limited due to distance of the facilities from public roadways and Project components would be low-lying within the landscape, they would not substantially obstruct or diminish existing views. An adverse change to the overall visual pattern character through the introduction of elements that would create visual dominance or scale is therefore not anticipated with the Project. As such, the Project design would not substantially change the visual character of the surrounding landscape.

5.2.7 Assessment of Visual Quality

The visual quality of a view is partially influenced by the viewing location from which public views occur. The viewing location can allow for views that are generally either expansive in nature or focused on a specific view of a site or particular feature within the landscape. In addition, visual quality is influenced by the particular characteristics of the viewing corridor within which a view occurs. Visual quality is also affected by the quality of the overall viewshed

area being viewed. Areas identified as having high visual quality are those which are identified as being sub-regionally important and possessing high scenic value.

The visual quality of the Project site would be potentially affected during the construction phase of the Project. Views of the site may include grading and construction activities, presence of construction vehicles and workers, and storage of building materials. Existing vegetation would provide some visual screening of the site from offsite public viewing locations; however, construction impacts on visual quality would be temporary and short-term, and would ultimately be reduced when construction is complete. Once the construction phase ceases, no other changes to the visual landscape would occur, as no other development or improvements are proposed, and no landscaping would be installed that would mature over time, thereby potentially further altering views to the Project.

As demonstrated in Figures 11 and 13, views of the Project components from Split Mountain Road would be limited. The two parcels present a landscape that is generally visually intact, but due to the nature of the onsite vegetation and the visual character of adjoining lands, are generally not considered to have a strong visual harmony with adjacent lands. Visual diversity on the site is generally low, with limited elements or features that disrupt or dominate the visual landscape, and no visually significant natural or topographical features are present. Neither of the parcels are considered to possess landscape components that create distinctive visual patterns or exhibit high visual quality. As such, the affected lands are generally not considered to be subregionally important or possessing a high scenic value.

As the lands affected by the Project would be graded (estimated maximum of approximately 370,000 c.y. total for grading and removal/recompaction) and/or cleared and grubbed, onsite vegetation following Project implementation would be minimal. As demonstrated in Figures 10 through 14, the Project components would be installed within the landscape and views from offsite vantage points would be limited, due to the scale and bulk of the elements.

As no landscape treatments are proposed with the Project, the visual quality of the site would not be enhanced following completion of the construction phase through the maturing of trees, plants, or other decorative landscaping features; however, as the existing visual quality of the affected parcels is not considered to be high, combined with the fact that surrounding lands support similar natural vegetation that would partially reduce views of the site from offsite vantage points, installation of the solar panels would not significantly reduce the overall existing visual quality of the Project site.

For the reasons above, it is not anticipated that the Project would significantly affect the existing visual quality of the lands affected by the Project or of surrounding lands.

5.2.8 Glare / Glint Effects

The potential for the proposed Project to result in glare effects that would detract from or contrast with the existing visual quality of the area or that would create hazardous conditions for operations at the Ocotillo Airport was also considered. Due to their nature and intent, the solar panels would be anti-reflective and highly absorptive, and would be designed to minimize the potential for glare and/or reflection of sunlight

In addition to numerous other investigations, in order to evaluate the potential glare/glint effects of solar panels, an investigation was conducted by the Federal Aviation Administration (FAA) for the installation of a 4-megawatt PV solar power generation array adjacent to Denver International Airport (DIA) in Colorado in 2006. A number of tests were performed to analyze glare effects, such as placing sample PV solar panels at different installation locations and at variable angles. No glare was noted by observers in any of the panel orientations. An aerial observation was also conducted. Reflectivity of the panels was measured four times per day, concluding that 96 percent of the sun's light was absorbed by the panels, and that the light reflected was dispersed. Since the panels were installed in August 2008, no complaints have been filed with DIA with regard to glare effects from the panels. A similar PV solar panel project was installed on the Express Hub at the Fresno Airport in Fresno, California. The project involved installation of flat plate PV modules and PV modules that capture and concentrate sunlight onto a solar cell which allow only reflected light from heat. No adverse effects from glare on airport operations have been reported.

Other similar solar panel projects throughout the U.S. and globally have been installed near airports with no impacts on flight operations with regard to glare. Such locations include the Munich Airport in Germany; the Love Field Airport in Prescott, Arizona; and, the San Francisco, California Airport. Additional PV solar studies considered in this visual analysis for the proposed Project included the Panoche Valley Solar Farm Project Glint and Glare Study (Panoche Report)¹ and a Technical Memorandum provided by SunPower Corporation, (SunPower Report)², both of which concluded findings of no significant adverse effects with regard to glare generated by PV solar panels.

Based on the above discussion and findings for glare effects of similar solar panel installations, potential Project-related glare effects for viewers from the Ocotillo Airport, as well as

¹ Panoche Valley Solar Farm Project Glint and Glare Report, prepared by Power Engineers, May 10, 2010.

² SunPower Corporation Technical Notification #T09014, Solar Module Glare and Reflectance, dated September 29, 2009.

surrounding public vantage points, are anticipated to be none to minimal, and no significant impacts would occur.

Based on the technical evidence evaluating the reflectivity of the solar PV solar panels, the proposed Project would not install highly reflective building materials that would result in a substantial increase in light or glare that would affect the surrounding area or that would produce reflective light that would create adverse disability or discomfort glare. The proposed Project would be designed and constructed in accordance with the County's Guidelines of Determining Significance for Lighting and Glare. The slight increase in glare resulting with the Project would be a less than significant impact.

In addition, to ensure that potential glare impacts are minimized with regard to operations at the Ocotillo Airport, the County would enforce certain design and operational standards, as applicable. These standards would require that all light fixtures or light sources be installed so as to comply with the rules and regulations of the FAA or other appropriate agencies governing height, type, and placement of lights that may affect the safety of aircraft operations into, from, and around the Ocotillo Airport.

5.3 Assessment of Viewer Response

Viewer response to visual changes on the Project site with development of the PV solar facilities is anticipated to be varied, dependent upon the Project facilities being viewed and the location of the public vantage point. Viewer response during the construction phase would potentially be greater because grading activities, construction equipment, and varying stages of roadway construction and panel installation may be visible from public roads within the Project vicinity. Once construction is completed, no other changes to the visual landscape would occur, as no other development or improvements are proposed, and no landscaping would be installed that would mature over time, thereby potentially altering views to the Project.

The PV solar field would be located approximately 1,800 feet east of Split Mountain Road, thereby distanced from travelers along the roadway and visually screened by intervening vegetation. As a result, views of the Project components from the road would be greatly reduced and would occur intermittently. Additionally, none of the proposed Project elements would exceed 35 feet in height, and the Project would therefore not introduce visual components that would readily attract the viewer's eye from vehicles traveling along the road. Viewer response to Project views from Split Mountain Road is therefore anticipated to be low.

Additionally, existing SDG&E utility poles are present in the visual landscape surrounding the Project site: within the existing SDG&E easement adjacent to the southern Project boundary

and the SDG&E easement that runs to the north of the site, ultimately connecting to the San Felipe Substation just east of Split Mountain Road. As designed, the Project would underground the lines between the solar panels within the site and connect overhead to an existing utility line near the northeastern property boundary. Such utility poles are already present within the visual landscape, and the Project would not result in the installation of new elements within the SDG&E easement that would contrast with existing views or increase viewer response to such changes in the visual setting.

Viewer response from other public vantage points within the valley or from public roadways located at a distance (i.e. State Highway 78) is also anticipated to be low. Views to the Project site from offsite vantage points within the community would generally be reduced or blocked due to intervening development and minimal differences in elevation (generally flat viewing plane). Viewer response from more distant locations would also be low, even at higher elevations, such as from the mountains located to the south and west of the site or within the Anza-Borrego Desert State Park, as the Project would not represent a significant visual feature within the landscape due to viewing distance and existing vegetation and other development along the valley floor. A similar viewer response is anticipated with those experiencing views from the existing railway leading from the U.S. Gypsum Company Quarry, as such passengers would be employees of the Quarry, and would experience distant views to the site.

Overall, installation of the proposed improvements would mainly be visible from Split Mountain Road, with limited views occurring from public vantage points within the surrounding valley and the adjacent State Park. As such, viewer exposure would be limited. Viewer sensitivity to the change in the visual setting would likely be low due to the limited number of viewers, the height of the Project components, and distance from such public vantage points to the Project site. As a result, viewer response to the proposed facilities would be lessened, as a substantial change in the existing visual landscape would not occur.

5.4 Determination of Significance

- 1) Introduction of features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color, architecture, building materials, etc.) or by being inconsistent with applicable design guidelines.

The Project site is not located within an area for which formal design guidelines have been adopted. Therefore, the Project would not be subject to, or conflict with, any applicable design guidelines.

Location / Lot Size

In the Project vicinity, parcels are generally large-acre parcels with low-density uses. A number of smaller parcels are located to the west and north of the Project site. Smaller lot sizes are evident within the more developed areas of Ocotillo Wells. The Project does not propose to subdivide or change the existing size of any of the parcels affected by the proposed improvements, and therefore, would not create lot sizes that were inconsistent with the existing visual character of lands in the surrounding area.

Architectural Design / Theme

Architectural design of structures within the area surrounding the Project is varied, due to a mixture of use types. The limited number of residential uses typically exhibit ranch-style features with wooden exteriors and roofing, and generally non-decorative elements. Several residential uses are constructed in the Spanish style, with stucco exteriors and tile roofing. Residential uses in the form of mobile homes to the north/northwest of the site are utilitarian in nature, exhibiting simple architectural design elements and limited fenestration. The limited commercial and industrial uses within the community also exhibit more utilitarian features with minimal architectural design features or decoration (e.g., several restaurants, retail store, San Felipe Substation, Ocotillo Airport, etc.).

The Project would involve installation of the solar panels on the two subject parcels, with supporting infrastructure that includes a substation, switchgear yard (private), small-scale structures to house the inverters/transformers/breakers, two 10,000-gallon water storage tanks, and an operations/maintenance building. As the Project represents a utility use, Project components would be utilitarian in nature and would not represent structural features such as residential or commercial buildings that would require detailed architectural design or design

features intended for visual enhancement. Architectural design of the proposed facilities is not anticipated to significantly contrast with the visual character of other uses found in the surrounding area. The architectural design of Project elements would not result in features that are visually dominant within the visual landscape, or that represent a scale that would significantly contrast with the existing visual character or disrupt the visual intactness or unity of the landscape.

Materials and Colors

Development on lands within the surrounding area generally exhibit a range of materials and colors, depending on the land use considered. Materials generally range from metal, wood, stucco, and concrete block for the limited residential and commercial uses. Metal and/or stucco structures are typical of area industrial- and agricultural-type uses. Exterior colors of area structures are typically earthtoned in nature.

Solar Panels

The solar panels would generally range from black to gray in color and would be highly absorptive. The materials used to construct the panels are designed to minimize the potential for reflection and retain as much of the solar spectrum as possible, thereby reducing glare. Metal piers (or other support structures) used for installation of the solar panels would be galvanized or painted to minimize reflection of light from the surface and to respect the natural setting.

Substation

The onsite substation would include transformers, breakers, switches, meters, and related equipment. Such elements would by nature be constructed of various metals with non-reflective surfaces, similar to those found at the existing San Felipe Substation located to the northwest of the Project site, adjacent to Split Mountain Road. The proposed onsite substation would support a control house that would be enclosed within a metal structure. The structure would be earthtoned in color (i.e., light brown, green) to visually blend the building into the surrounding landscape and avoid contrast with the existing rural character of the area.

Inverter/Transformer/Breaker Enclosures

Equipment pads would be constructed within the solar panel field to house the inverters/transformers (PV) or transformers/breakers (CPV). The structures would be constructed of non-flammable materials (i.e., steel) with an earthtone finish. Roofing for these

structures would also be metal and of an earthtone finish to reflect the visual character of the surrounding natural environment.

Overall, the Project would result in the construction of elements within the landscape that would be respective of the existing visual character and visual quality with regard to materials and color. No design features are proposed that would sharply visually contrast with surrounding elements, or that would create a visually dominant feature within the landscape.

Height / Square Footage

Vacant land generally surrounds the Project site; however, a limited number of small-scale, single-family rural residential (including two mobile home parks) and several commercial uses are present to the west/northwest along Split Mountain Road and SR 78. Such structures are generally one to two stories in height. Limited industrial-type and/or agricultural uses on surrounding lands support structural elements that generally range from 10 to 30 feet in height, with various elements of greater height, depending on their function.

Square footage of buildings in the area varies, due to the type of use, with residential uses generally of smaller scale (one to two stories) and commercial and industrial-type uses supporting structures of greater square footage.

Solar Panels

Due to the limited height of the solar panels (30 feet with the Dual-Axis Tracker Units) and the topography of the two affected parcels (minimal Project grading required), visibility of the panels within the landscape would be reduced. As sensitive land uses (i.e., residential uses) are not located in the immediate area surrounding the affected parcels, and views to the site would instead generally occur at a distance from developed properties and/or roadways, views of the panels would be limited.

Project Substation

The overall footprint of the Project substation would be approximately 250 feet by 250 feet (62,500 square feet or s.f.), with various supporting equipment installed within the footprint. Overall height of the substation would be approximately 35 feet at the apex. The height of the substation, which would be the largest structure built as part of the Project, would generally be consistent with the height of a two-story single-family residential home. Although the footprint of the substation would be approximately 62,500 s.f., due to the nature of the substation facilities, varied heights, and spacing, the equipment would not represent a solid wall or façade, but instead would allow for views through the equipment, thereby reducing the visual

appearance. In addition, similar larger-scale elements or structures are associated with other existing uses within the surrounding area.

Inverter/Transformer/Breaker Enclosures

The individual onsite structures intended to house the inverters/transformers/breakers would be approximately eight feet in height, with a metal shade structure installed over the enclosures, reaching a height of approximately 11 feet (3-foot clearance over the enclosures). As such, these structures would be relatively small in nature, and would not represent a size or height that would significantly contrast to existing land uses in the surrounding area (i.e., residential, industrial, small-scale commercial uses, etc.).

Operations/Maintenance Building

The onsite operations/maintenance building would be approximately 1,040 s.f. in size. The structure would range from approximately 15 feet to 16 feet in height. As such, this structure would be small-scale in nature, consistent with land uses generally found in the surrounding area.

Transmission Facilities

It is anticipated that the existing utility poles located within the SDG&E easement along the southern Project boundary and within the utility easement running to the north of the Project would remain at their present height with Project implementation. The Project proposes to connect to the existing aboveground utility line to the north of the site.

Bulk and Scale

An evaluation of bulk and scale includes an analysis of the visual appearance of structures, relative to other existing development in the surrounding area. Visual bulk and scale of surrounding structures varies depending on the type of use. Residential and commercial uses tend to be of smaller scale (generally one to two stories in height) and visually horizontal in nature. Many of the residential uses in the area are single-family homes of average square footage, or mobile homes located within trailer parks, and therefore, are of limited scale and bulk. Similarly, the majority of commercial uses within the area, which are generally focused along SR 78 and Split Mountain Road, are similar in scale and bulk to that of a single-family home, and are generally low-lying within the visual landscape (generally one story). Agricultural, service-type, and industrial-type uses generally support structural elements of greater visual bulk and scale within the visual landscape, such as recreational buildings associated with mobile home parks, firehouse (volunteer fire department), and limited storage

facilities/barns located on privately-owned parcels in the community, which are generally of a greater square footage and height than a single-family home.

It is anticipated that the apparent visual bulk and scale of the proposed Project facilities would generally be consistent with that of surrounding uses, due to the design requirements of the solar facilities and associated infrastructure, structural/equipment heights, and required development regulations of the applicable zones.

Depending on the type of technology selected, the panel configurations would vary. Total height of the systems measured from ground surface would range from approximately 9.5 feet to 30 feet. As such, the solar panels would be generally low-lying within the landscape and would not be of significant scale. Similarly, the overall size of each of the panels would vary; however, as compared to other elements within the surrounding visual landscape (e.g. residential units or commercial uses), the panels would not represent elements of significant bulk. The panels would be of a minimal thickness and would support the mechanisms required for collection of energy from the sun.

In addition, the structural elements (substation, inverter/transformer/breaker enclosures, operations/maintenance building) would be dispersed within the overall acreage of the parcels. The substation would reach an approximate 35 feet in height at its apex, with the other structures generally ranging between 10-16 feet in height. As these facilities would be relatively low-lying within the landscape and limited in height, they are not considered to be of significant scale that would be inconsistent with surrounding land uses or community character.

In addition, these supporting elements would range from an estimated 600 s.f. to 96,750 s.f. (development footprint), and would not be of significant visual bulk, due to their function and utilitarian design. The proposed Project components would not represent elements that would detract from the existing visual character or quality of the site or that would significantly dominate or differ in size from existing components within the landscape. Furthermore, the visibility of the Project components would be reduced due to existing vegetation along the valley floor, relatively level topography of the valley floor (flat viewing plane), and distance of the site from potential public vantage points in the surrounding area.

The bulk and scale of the proposed Project components would be consistent with existing structural elements within the surrounding area. Therefore, the proposed Project is considered to be consistent with this finding for compatibility with regard to bulk and scale.

Building Coverage

Building coverage is generally expressed as a percentage and represents the area of land covered by the footprint of a building. Building coverage is calculated as the building area divided by total lot area. The building footprint does not include paved areas, such as driveways or parking areas or walkways around structures, as defined by Section 1110 of the County Zoning Ordinance.

Many undeveloped lands are present in the area surrounding the Project site, and therefore, do not support structures or built elements; refer to Figure 2, Aerial Photograph. On the limited number of parcels where development has occurred, the majority of surrounding developed lands are large-acre parcels with structures of varied square footage, depending on the use (i.e., single-family residential versus industrial). As lot sizes generally increase in the vicinity of the Ocotillo Wells “commercial core,” south of State Highway 78, building coverage increases.

With installation of the Dual-Axis Tracker Units (which represents a development scenario considered to have the greatest potential for impact on the existing visual setting, due to height of the solar panels), the Project design would include construction of one substation, approximately supporting equipment pads, and a storage building/control room within the MUP area. The substation (building footprint) would total approximately 62,500 s.f., overall (250 feet by 250 feet). The equipment pads would be approximately 15 feet by 40 feet, or 600 s.f. each. In addition, the storage building/control room would total approximately 1,040 s.f. As the land area affected by the proposed development would be approximately 336.4 acres (or 14,653,584 s.f.) of the total 440 acres, overall lot coverage within the MUP area would generally be less than one percent for any of the four technologies considered. As such, Project building coverage would represent only a fractional portion of the affected parcels, consistent with the generally rural character of surrounding lands. As shown in Table 6, lot coverage was determined utilizing the Dual-Axis Tracker Units, which would require 39 equipment building pads. Therefore, lot coverage for the Project would be similar in comparison (or lesser than) with other properties in the surrounding area.

Although from an aerial perspective, the panels would appear to cover a substantial land surface area, the panels would be mounted on poles and/or in combination with a concrete foundation, thereby minimizing the footprint, or coverage, of each panel row within the array. Taking this into account, the Project coverage represents a fractional portion of the affected parcels, thereby further enhancing Project consistency with lot coverage typical of other developed properties within the area. The Project is considered to be consistent with this finding with regard to lot coverage.

TABLE 6
STUDY AREA - BUILDING ANALYSIS (EXISTING DEVELOPMENT)

APN #	Address	Existing Land Use	Lot Size (Acres)	Total Building Size (Sq. Ft.)	Building Footprint ¹	Lot Coverage (Estimated) ²
253-360-55 (adjacent to Study Area)	N/A	Residential	20.0 (871,200 s.f.)	N/A	N/A	N/A%
253-390-57 and -58 (Proposed Project)	Split Mountain Road	Undeveloped / Two Mobile Homes / Misc. Support Structures	336.4 (total of MUP area/14,653,584 s.f.)	87,766 ³	87,766	0.59%
253-390-13	6953 Split Mountain Road	SF Residential	40.0 (1,741,529 s.f.)	1,441	1,441	0.08%
253-390-30 (adjacent to Study Area)	7004 Split Mountain Road	Residential (Mobile Home)	9.1 (395,525 s.f.)	1,248	1,248	0.32%
253-390-45 (adjacent to Study Area)	7104 Split Mountain Road	Residential	10.0 (435,600 s.f.)	768	768	0.18%

¹ Land surface area covered by structures. Assumes one-story building where number of stories is unknown.

² Lot coverage = Building Footprint/Lot Size

³ Reflects square footage of building footprint for the Dual-Axis Tracker Units to account for layout of substation (62,500 s.f. footprint including control house), operations/maintenance building (1,040 s.f.), 40 equipment pads (24,000 s.f.), and two water storage tanks (226 s.f. total) = 87,766 s.f. total; refer to Figure 3E, Major Use Permit Plot Plan- Dual-Axis Tracker Units.

The appearance of the above-described Project elements within the landscape is not anticipated to significantly detract from or contrast with the existing visual character and/or quality of the surrounding neighborhood, community, or localized area. The location, size, design, and operating characteristics of the proposed use would be compatible with adjacent uses, residents, buildings, and structures with consideration given to harmony in scale, bulk, and coverage.

- 2) Removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area, including but not limited to landmarks (designated), historic resources, trees, and rock outcroppings.

Neither the two affected parcels nor offsite areas affected by the Project for access purposes support designated landmarks, historic resources, significant trees, or rock outcroppings. Although the Project would result in the installation of the solar panels and associated facilities within the existing landscape, no significant visual resources either onsite or offsite would be removed or substantially changed as the result of Project construction.

In addition, utility poles/lines are present along the existing offsite utility easement to the south of the Project site and to the north of the site, ultimately connecting to the existing San Felipe Substation. The replacement or retrofitting of such poles is not proposed, and therefore, would not cause a substantial adverse change in the existing visual character along these easements.

As such, the Project as proposed would not result in the removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area. Impacts would be less than significant, and no mitigation is required.

- 3) Substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, a trail within an adopted County or State trail system, a scenic vista or highway, or a recreational area.

The proposed facilities would be constructed on generally undeveloped lands just east of Spilt Mountain Road. As stated previously, land uses within the surrounding area include a limited number of single-family rural residential uses mixed with industrial and commercial-type uses, including the Ocotillo Airport, several restaurants/commercial uses, and agricultural uses.

Project construction activities (i.e., construction vehicles, equipment to be installed, etc.) would be temporarily visible on the Project site and briefly along the proposed offsite access easement/roadway; however, the identified parcels occur within a rural environment, with limited visual resources. Construction activities may be somewhat visible from area roadways and/or adjoining properties; however, such effects would be temporary and would cease upon completion of construction.

The following is a discussion of views that would occur from identified vantage points in the surrounding area. Viewpoint locations are identified on Figure 9, Key Viewpoint Locations.

Key View 1 – View from State Highway 78

State Highway 78 is a four-lane, paved public road, running east-west approximately three miles north of the Project site. State Route 78 is designated as a State Scenic Highway through Anza Borrego State Park. Additionally, State Route 78 is designated as a County of San Diego Third Priority Scenic Route from the western boundary of Anza-Borrego State Park to the Imperial County line.

Views of the Project components would be limited from this roadway. Although intermittent views of the Project site may be afforded from various vantage points along the roadway within the vicinity of the Ocotillo Wells community, they would be brief and minimized by distance as well as reduced by established natural vegetation along the roadway, intervening topography, and travel speeds; refer to Figure 10, which shows views to the Project site looking south to the Project from State Highway 78. As such, the Project would not substantially obstruct, interrupt, or detract from a scenic vista or highway, and impacts would be less than significant.

Key View 2 – View from Split Mountain Road/Existing Substation

Split Mountain Road is a two-lane, paved public roadway, running north-south, approximately 0.3 mile west of the Project site at its closest point. As shown in Figure 11, views of the solar panels from Split Mountain Road near the existing San Felipe Substation would be obscured due to distance from the site, as well as intervening vegetation and topography. Changes to the existing landscape as the result of Project implementation would therefore be unnoticed by travelers along the roadway. Additionally, as no changes are proposed to the existing utility poles within the SDG&E easement (R-Line) that runs to the north of the site and is visible from this vantage point, the Project would not result in changes to existing views of such facilities within the surrounding landscape.

Therefore, the Project is not anticipated to cause a significant visual impact or substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from this public road, and impacts would be less than significant.

Key View 3 – View from Anza-Borrego Desert State Park

Views of the Project would occur from various locations within the Anza-Borrego Desert State Park. As illustrated in Figure 12, views would generally be limited and would not be significantly changed from that which presently exists due to distance to the site, other development within the valley floor, and established vegetation. Although the Project would be visible, the panels would be low-lying within the landscape due to the proposed height. Other

onsite structures (i.e. substation, inverter/transformer enclosures, etc.) would also not be readily apparent from this viewing location, due to structural height and distance to the site. As such, the Project is not anticipated to cause a significant visual impact or substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista within a recreational area, and impacts would be less than significant.

Key View 4 – View from Split Mountain Road

Views of the Project would occur from Split Mountain Road, located approximately 0.3 mile to the west of the Project site; refer to Figure 13. The road extends generally to the north to the “core” of Ocotillo Wells and serves as a main travel corridor within the community. Views of the Project site would vary along this roadway, and would largely consist of the upper portions of the PV solar panels, but would generally be short in duration as one traveled along the road looking to the site. Although the solar panels would be visible within the landscape from this roadway, as shown in Figure 13, such views would be intermittent and limited, due to the angle of view and viewing distance to the Project site, as well as minimal differences in elevation between the road and the site, and intervening vegetation. As views of the Project components would be limited from this vantage point, the Project is not considered to result in development that would obstruct or interrupt views from a public road or scenic highway, and impacts would be less than significant.

Key View 5 – Anza Borrego Desert State Park Looking North from Existing Railroad Line (near U.S. Gypsum Company Quarry)

Key View 5 is the view of the Project site looking north from along the existing railroad line that extends from the U.S. Gypsum Company Quarry for purposes of transporting the materials extracted from the quarry; refer to Figure 14, Key View 5 (Visual Simulation) – View from Anza-Borrego Desert State Park/Existing Railroad Line, which shows the existing and proposed views from this vantage point. Viewers from this location would mainly be passengers in vehicles traveling north along Split Mountain Road or passengers on the train as it leaves the Quarry. Riders on the train would generally be employees of or visitors to the Quarry and not the general public; however, as the rail line passes through portions of the Anza-Borrego Desert State Park, the train traverses public lands, and therefore, views from the train would be considered public views.

Views from this vantage point occur at approximately 3.5 miles south of the Project site and are generally composed of the valley floor with low-lying vegetation, with varying geological and topographical features in the background. The existing visual landscape does not offer

memorable landscape components or distinctive visual patterns, and therefore, visual quality and character are considered to be low to medium.

As shown in Figure 14, although views to the site would change from this vantage point as one travels along the railroad line (or nearby Spilt Mountain Road near this vantage point), views of the PV solar panels from Key View 5 would be highly obscured, due to established vegetation along the desert floor and distance from the Project site, as well as minimal differences in elevation between the rail line and the site, combined with the limited height and size of the Project elements. Additionally, the color of the panels would allow the panels to visibly blend into the surrounding natural vegetation as seen from this vantage point. As views of the Project components would be limited from this vantage point, the Project is not considered to result in development that would obstruct or interrupt views from a public road or scenic highway. Impacts would be less than significant.

Other Views

A number of public trails exist on surrounding lands within the Ocotillo Wells area. Such trails may occur within the Anza-Borrego State Park, Ocotillo State Vehicular Recreation Area, or along the various mountain ranges that rise from the valley floor. Any potential views of the Project site from such trails would occur at a distance, thereby reducing the visibility of the proposed facilities. In addition, views to the site from such trails would likely be intermittent due to elevation and topography, as well as intervening vegetation. With consideration for distance to the Project site and the limited size (height) of the panels and other Project components, along with other built elements visible within the landscape along the valley floor, the visual effect of the Project would be minimal and views from such trails are not anticipated to be significantly changed with Project implementation. Refer also to Figure 12, Key View 3 (Visual Simulation) – View from Anza-Borrego Desert State Park.

The Project does not propose the construction of any public trails or the dedication of any easements or right-of-way for the future construction of any trails. The Project would not interfere with or obstruct any existing trails associated with the Anza-Borrego Desert State Park, and no such trails are located immediately adjacent to the Project site.

As such, it is not anticipated that the Project would substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road or a scenic vista or highway. In addition, views from established recreational areas would not be obstructed or interrupted with development of the site as proposed. Therefore, impacts would be less than significant, and no mitigation is required.

- 4) The project would not comply with applicable goals, policies or requirements of an applicable County Community Plan, Subregional Plan, or Historic District's zoning.

The Project as proposed has been designed to be consistent with all applicable goals, policies and requirements of the County General Plan and the County Zoning Ordinance; refer to Section 2.4, Regulatory Framework, above. The Project site is not within an area subject to an adopted Community or Subregional Plan. The Project site is not within a Historic District, and is therefore, not affected by such a plan. As such, Project impacts with regard to this issue would be less than significant, and no mitigation is required.

5.5 Cumulative Impact Analysis

Figure 15, Discretionary Projects, identifies the projects considered for the cumulative analysis. The study area selected for the Project is generally defined as the viewshed within which the Project site and other present, planned, and future development would be visible. As the site is located along the valley floor, views of development within the viewshed would have the potential to affect the existing visual landscape on a cumulative basis, as development occurs over time. Therefore, the limits of the cumulative study area, consistent with the viewshed boundary, generally follows the ridgelines of the mountains that surround the community of Ocotillo Wells, as development on the downslope of such mountains (opposite to that which can be seen from the Project site) would not contribute to an overall visual change in existing conditions. A list of projects considered for the cumulative analysis is included in Table 7, Cumulative Projects, below.

**TABLE 7
CUMULATIVE PROJECTS**

Permit #*	Project Reference
<i>San Diego County</i>	
03-055 and -56 MUP / 03-031 Minor Use Permit	Cingular Wireless
88-022-01	Yaqui Sprint Nextel MUP Minor Deviation
10-016	Split Mountain MUP PV Power Plant
88-022-02	AT&T, SBB&MT1055 MUP Minor Deviation
71-373-01	Gramcko MUP Minor Deviation
<i>Imperial County</i>	
N/A	No Projects Located within Viewshed

*Permit numbers correspond to project locations identified on Figure 15, Discretionary Projects.

It is anticipated that future construction activities within the cumulative study area would occur on various sites and at varied times, when an application for development is made. Such construction-related impacts would be short-term and would cease upon completion. In addition, all new development projects within the cumulative study area would be subject to additional environmental and design review on a site-specific, project-by-project basis to ensure visual aesthetic impacts are limited to the extent possible during the construction process. All future construction activities would be required to be consistent with the County's regulatory requirements and applicable conditions of approval to reduce potential cumulative effects of construction to less than significant.

In addition, future development of the cumulative projects in the Project vicinity could permanently convert existing offsite open space or undeveloped/vacant lands to developed lands, potentially resulting in the incremental loss of such lands within the Ocotillo Wells community. Such future development could also contribute to the alteration of views to designated visual resources. All future development within the surrounding area would be subject to an evaluation of the significance of potential cumulative visual and aesthetic changes on a site-specific, project-by-project basis, with consideration for its scope and contribution to a change in the overall visual pattern or character within the community.

The cumulative projects considered for the Visual Analysis are located throughout the Ocotillo Wells area; refer to Figure 15, Discretionary Projects. The projects considered represent a limited range of uses, including cellular towers and improvements to an existing power plant. Land development projects within the cumulative study area for Imperial County were also researched; however, no projects were identified. A number of land development projects are planned to the south and east of the Project site (outside of the study area), generally in the areas that support higher concentrations of development (e.g. Desert Shores, Salton Sea, Calipatria, etc.). As such projects would not be visible when viewed with the proposed Project, they were not considered in the analysis for their potential to contribute to a cumulative visual impact.

It should be noted that formal applications have been submitted for several solar energy-generating facilities within the western portion of Imperial County, although at a distance from the Project site and not within proximity to the cumulative study area (viewshed). These projects include the Imperial Solar Energy West project, located approximately 26 miles to the southeast of the Project site near Interstate 8; the Mount Signal Solar Farm I project, located approximately 40 miles to the southeast; and, the Imperial Solar Energy South project, located approximately 38 miles to the southeast. These projects are currently being processed through Imperial County.

As the Ocotillo Wells area offers a desert environment with abundant sunshine, combined with available undeveloped lands that are generally flat, the area represents optimal conditions for the sighting of solar energy facilities in the future. If proposed, it is anticipated that any future installation of solar panels along the valley floor would occur sporadically on available parcels as independent development applications, rather than concentrated in one large area of the valley. Thus, the cumulative visual effects of such installations would be reduced, as a range of small-scale to larger-scale projects would likely be proposed, depending on available land, proper zoning, and the nature of the development application.

In addition, as evaluated for the proposed Project, potential glare impacts on a cumulative level as the result of additional solar energy facilities locating within the Ocotillo Wells community or surrounding area would be less than significant. As all solar panels are designed to absorb sunlight, potential glare effects from future additional solar installations would not create significant glare or reflective surfaces that would create adverse effects on surrounding land uses or on views from surrounding vantage points.

If proposed, future solar installations along the valley floor would have a similar visual effect as other types of development would have in that they would generally change undeveloped land to developed land. Over time, it is anticipated that development within the Ocotillo Wells community and surrounding areas will continue to occur. As the valley floor is extensive, and the proposed Project site represents a minimal overall percentage of such lands, the proposed development is not expected to result in a significant visual change in the appearance of the valley floor when viewed from higher elevations. In addition, due to the limited height and scale of the proposed Project elements, the Project is not anticipated to contribute to a significant cumulative impact on existing views from locations within the valley, as such views would be restricted by relatively level topography, and intervening development and vegetation.

Assuming a complete buildout of all the projects considered for the cumulative analysis, potential aesthetic cumulative impacts are considered to be less than significant for the following reasons:

The projects considered would not result in the introduction of features that would detract from or contrast with the existing visual features of the surrounding area. Existing development in the Ocotillo Wells area largely consists of a range of uses that include limited single-family residential and commercial uses, mobile home parks, several agricultural uses, and public recreational areas. The inclusion of the proposed Project in the land use mix would not conflict with the visual quality of the area because the Project is distanced from the other projects

considered and would be installed on lands generally surrounded by vacant or undeveloped lands. The project would not disrupt the pattern of development adjacent to existing homes or businesses, and would not conflict with any adopted design guidelines or thematic development requirements in the area.

The addition of the cumulative projects would not remove or create a substantial adverse change to the features that represent a valued visual resource in the area. The valley floor would still be visible from higher elevations and would still appear to have a scattered development pattern once the cumulative projects are constructed. None of the projects would significantly alter the mountain views from the valley floor from places where they are currently observed. The cumulative projects would not remove or replace any local or State designated landmarks.

The proposed Project would not substantially obstruct or detract from valued lookouts or panoramic views from public roads, scenic highways, or recreational areas. Buildout of the cumulative projects would not have an adverse effect on these public viewsheds because the projects are anticipated to match the existing development pattern present in the valley. As noted previously, most of the cumulative projects are modifications to existing developments. From a vantage point where all of the developments would be visible, it would appear as the continuation of the existing development pattern in the area. In order to see all of the proposed projects, the viewpoint would need to be located at a higher elevation than the valley floor, and would be distanced from the proposed Project site. As such, the cumulative visual effect of the projects would not substantially obstruct views from scenic vistas or public roads.

Moreover, the cumulative projects would be required to comply with applicable goals and policies of the County General Plan, and County Zoning Ordinance. Any future projects that propose to change the existing County General Plan and/or Zoning Ordinance designations would require project-specific analysis to demonstrate project compatibility, prior to gaining County approval.

In addition, all lighting proposed with future development within the cumulative study area, such as street lighting, security lighting, or exterior illumination, would potentially result in increased light and glare impacts within the Ocotillo Wells community. Projects within the cumulative study area would be evaluated by the County on a project-by-project basis to determine the extent of such lighting necessary and any appropriate site-specific measures to reduce potential impacts on surrounding areas (i.e., shielding, use of low-level lighting, directing lighting away from adjacent properties and open space areas). As such, it is anticipated that the cumulative effects of increased lighting and/or glare associated with future

development in the cumulative study area would be reduced to less than significant levels. As the Project would require minimal lighting for the purposes of security and maintenance, the Project would not contribute to significant cumulative impacts relative to light and/or glare. Impacts in this regard would be less than significant.

All future development within the Ocotillo Wells community would be subject to an evaluation of the significance of potential cumulative visual and aesthetic changes on a site-specific, project-by-project basis, with consideration for its scope and contribution to a change in the overall visual pattern or character within the community. Adherence to applicable General Plan policies and goals and applicable County Design Standards would further reduce potential cumulative impacts relative to the long-term alteration of views to designated scenic resources. Although the Project would result in a permanent visual change in the existing landscape with development of the proposed PV solar farm, as demonstrated by evaluation of the visual simulations prepared, the Project is not considered to contribute to a significant cumulative effect with regard to the loss of views to scenic resources.

5.6 Summary of Project Impacts and Significance and Conclusions

The Visual Analysis was prepared to provide an evaluation of potential Project impacts on existing visual resources and character of the surrounding community of Ocotillo Wells, California. With regard to visual resources, the Project would not result in the introduction of features that would significantly detract from or contrast with the visual character of the surrounding community by conflicting with visual elements or quality of an existing area (i.e., through conflicting style, size, coverage, scale, building materials, etc.). The Project would not result in the removal of or substantial adverse change to one or more features that contribute to the valued visual character or image of the Project area, including but not limited to designated landmarks, historic resources, trees, or rock outcroppings. Furthermore, the Project would not substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, trails within an adopted County or State trail system, scenic vista or highway, or recreational area. The Project as designed would also not result in an inconsistency with any goals, standards, or policies related to visual resources as given in the County General Plan or County Zoning Ordinance.

For the above reasons, it was determined that the Project would not result in potentially significant impacts on visual resources in the Ocotillo Wells community. As such, no mitigation measures are required or proposed.

6.0 Visual Mitigation Measures / Design Considerations

6.1 Visual Impact Analysis

The Project would not result in the introduction of features that would significantly detract from or contrast with the visual character of the Ocotillo Wells community by conflicting with visual elements or quality of an existing area. In addition, the Project would not result in the removal of or substantial adverse change of one or more features that contribute to the valued visual character or image of the Project area, including but not limited to designated landmarks, historic resources, trees, or rock outcroppings. Furthermore, the Project would not substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, trails within an adopted County or State trail system, scenic vista or highway, or recreational area. The Project as designed would also not result in an inconsistency with any goals, standards, or policies related to visual resources as given in the County General Plan or other applicable regulations and ordinances.

Design measures contributing to reduced visibility of the Project facilities within the landscape include the 30-foot setback from the MUP perimeter for emergency access and reduction of the potential for wildfire to occur. In addition, the Project has been designed to place the majority of structures (equipment pads) on the two parcels within the interior of the property to reduce visibility, and structures would include an exterior surface that is earthtoned. Access to the parcels would be provided through a secured gate and identified by minimal signage, rather than decorative or otherwise highly visible design features. Although the Project would change the visual character of the affected parcels, the proposed facilities would be consistent with development intended for the properties, as indicated by the existing General Plan land use and zoning designations, and would be visually compatible with other existing uses in the surrounding area which support structural elements or design characteristics (i.e. materials, colors, etc.) similar to that associated with the Project.

For the above reasons, no significant impacts on visual resources/aesthetics are anticipated to occur with Project implementation. Therefore, no mitigation measures are required or proposed.

Through this Visual Resources/Aesthetics Analysis, potential effects of the Ocotillo Wells Solar Farm Project were evaluated against the thresholds of significance developed by the County of

San Diego. The Project is considered to be compatible with the existing character of the surrounding Ocotillo Wells community, and would be consistent with applicable County and community land use regulations with regard to visual and aesthetic resources. No significant impacts were identified with regard to visual/aesthetic resources. As such, Project impacts would be less than significant, and no mitigation measures are required or proposed.

7.0 References

County of San Diego General Plan. Adopted August 3, 2011.

County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements – Visual Resources. July 30, 2007.

County of San Diego Zoning Ordinance. Updated with Ordinance Update No. 80, October 2009.

County of San Diego Wildland Urban Interface Ordinance. Ordinance No. 9670.

Ocotillo Airport Land Use Compatibility Plan. Adopted December 2006.

Panoche Valley Solar Farm Project Glint and Glare Report, prepared by Power Engineers, May 10, 2010.

SunPower Corporation Technical Notification #T09014, Solar Module Glare and Reflectance, dated September 29, 2009.

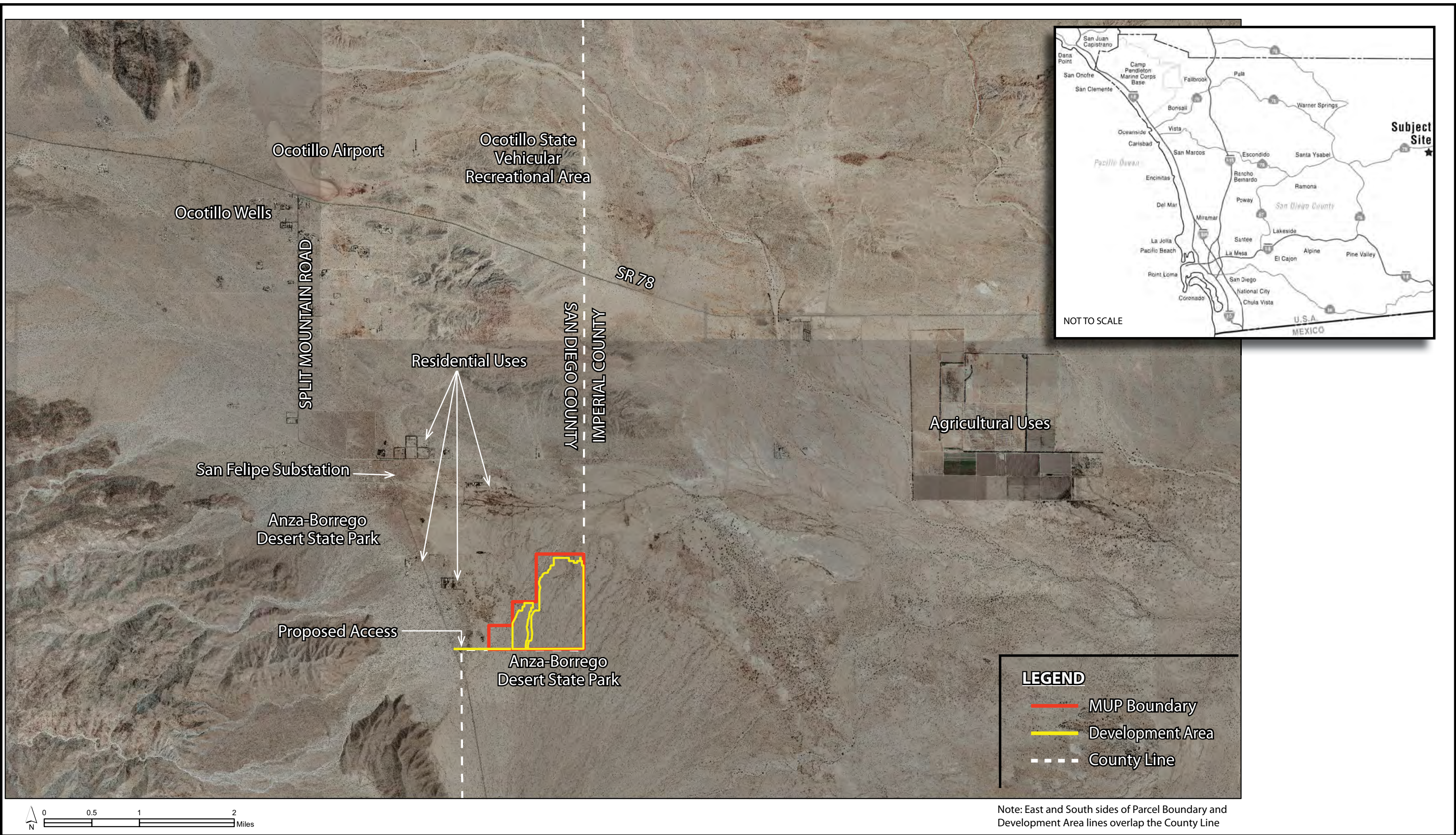
8.0 Report Preparers

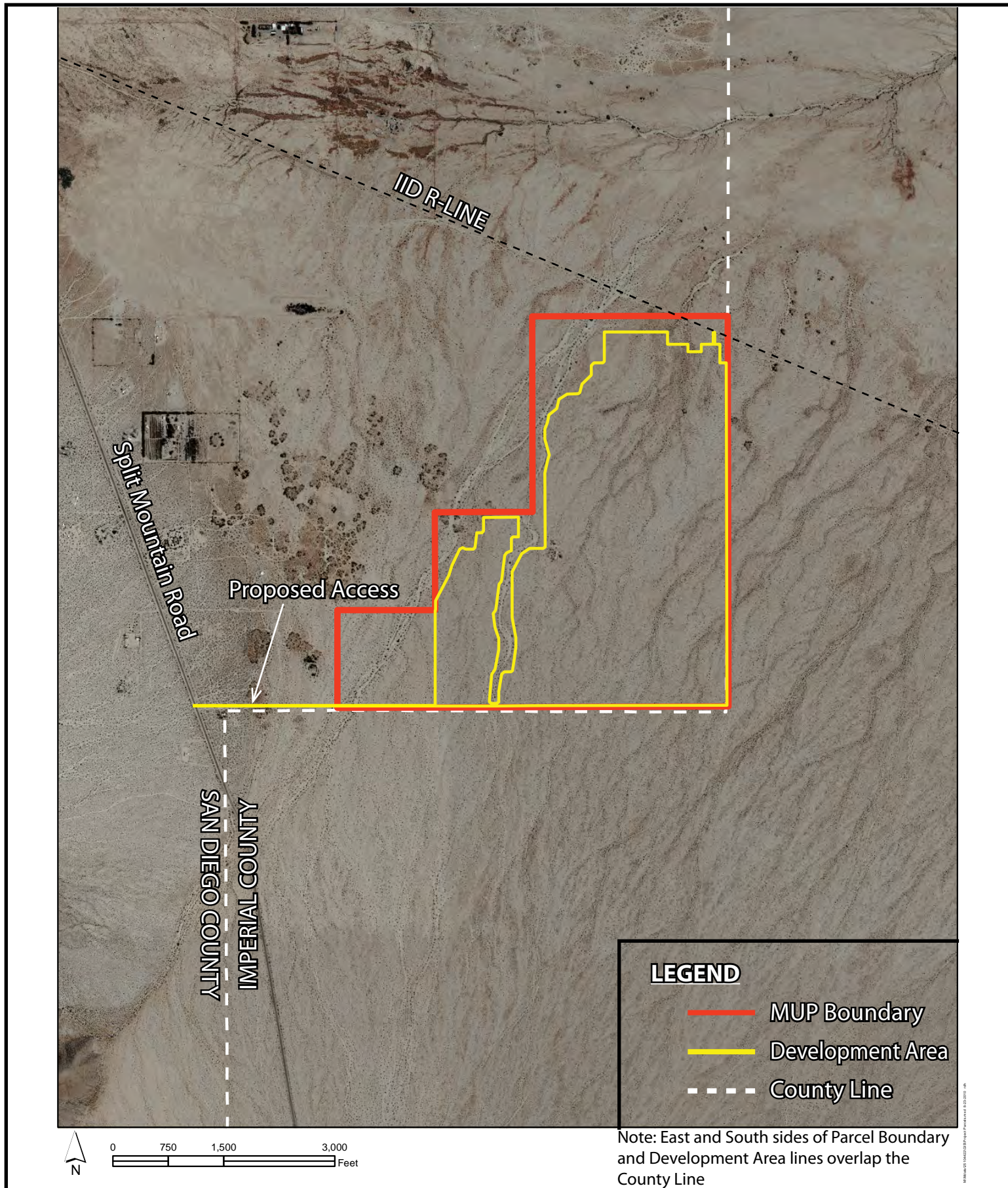
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Environmental Planner
Primary Author of Visual Impact Analysis

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NOTES

1. GROSS AREA: 440.53 AC ACRES
2. DEVELOPMENT AREA: 338.10 ACRES
3. GENERAL PLAN: RURAL LAND (RL80)
4. REGIONAL CATEGORY: RURAL LANDS
5. TOPOGRAPHIC SOURCE: VERTICAL MAPPING, FLOWN 4/20/2011
6. ASSOCIATED REQUESTS: NONE
7. THE APPROVAL OF THIS MAJOR USE PERMIT (MUP) AUTHORIZES THE FOLLOWING: CONSTRUCTION, OPERATION, AND MAINTENANCE OF A PHOTOVOLTAIC SOLAR FARM PURSUANT TO SECTION 6952 OF THE SAN DIEGO COUNTY ZONING ORDINANCE.
8. THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.
9. ALL BUILDINGS TO BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIALS (CONCRETE, BLOCK, METAL) OR SIMILAR.
10. NO LANDSCAPING PROPOSED.
11. LIGHTING FOR MAINTENANCE AND SECURITY PROPOSES ONLY. SHIELDED LIGHTING LOCATED AT GATES AND SUBSTATION BUILDING AND SHALL CONFORM TO COUNTY OF SAN DIEGO OUTDOOR LIGHTING REQUIREMENTS. SEE DETAIL ON SHEET 6.
12. PHASING - PROJECT WILL BE IMPLEMENTED IN SEVERAL PHASES WITHOUT REGARD TO SEQUENCE.
13. ALL DISTURBED AREAS WOULD BE COVERED WITH GRAVEL OR A BINDING AGENT TO REDUCE DUST.
14. SEE PRELIMINARY GRADING PLAN FOR PROPOSED GRADING.
15. ONLY SMALL DIRECTIONAL, LIMITS OF OPEN SPACE AND SAFETY SIGNAGE ARE PROPOSED.
16. NO DEVELOPMENT WILL OCCUR IN THE AREAS IDENTIFIED ON THE PLOT PLAN AS "OPEN SPACE".
17. SEE PLOT PLANS FOR LEGEND.
18. THE ENTIRE SITE IS SUBJECT TO INUNDATION BY THE 100-YEAR FLOOD AND IS WITHIN FEMA MAP NO. 06073C0675F. THE LIMITS OF THE 100-YEAR FLOOD ALONG THE WATERCOURSE WHICH FLOWS THROUGH THE PROPERTY.
19. SITE ACCESS GATE(S) TO BE EQUIPPED WITH FIRE DEPARTMENT APPROVED STROBE LIGHT ACTIVATION AND KNOX KEY-OPERATED SWITCH.
20. SOLAR RELATED FACILITIES (PANELS, RACKING, ELECTRICAL CONNECTIONS, INVERTER/TRANSFORMER PADS, O&M BUILDING, CONTROL ROOM, EMERGENCY GENERATOR, SUBSTATION, SWITCHGEAR YARD, FENCING, AND INTERNAL ACCESS, ETC.) SHOWN ON THE PLOT PLAN MAY BE RELOCATED, RECONFIGURED, AND/OR RESIZED WITHIN THE SOLAR FACILITY DEVELOPMENT AREA (EXCLUSIVE OF THE OPEN SPACE AREAS) WITH THE ADMINISTRATIVE APPROVAL OF THE DIRECTOR OF DPLU WHEN FOUND IN CONFORMANCE WITH THE INTENT AND CONDITIONS OF PERMIT'S APPROVAL. TRANSFORMER/INVERTER/GENERATOR LOCATIONS CAN BE RELOCATED/RECONFIGURED WITHOUT REQUIREMENT OF MINOR DEVIATION. THE TRANSFORMER/INVERTER/GENERATOR MUST COMPLY WITH THE NOISE ORDINANCE AND MUST BE ELEVATED 1" ABOVE FLOOD ELEVATION. THE 24" FIRE ACCESS ROAD WIDTHS MAYBE REDUCED ADMINISTRATIVELY WITH THE APPROVAL OF THE COUNTY AND FIRE AUTHORITY HAVING JURISDICTION OVER THE PROJECT.
21. PROVIDE OVERRIDE SWITCH CONTROL NEAR MAIN ENTRY TO ALLOW FIRE DEPARTMENT TO MOVE TRACKERS INTO STOW POSITION.

EXISTING EASEMENTS

DESCRIPTION	DISPOSITION
① ACCESS EASEMENT - BOY SCOUTS OF AMERICA	TO REMAIN
② ACCESS EASEMENT - GILDED BUILDING CO.	TO OUTLAIM
③ 20' PUBLIC HIGHWAY EASEMENT	TO REMAIN
④ 20' PUBLIC HIGHWAY EASEMENT	TO REMAIN
⑤ 40' PRIVATE ACCESS/UTILITY EASEMENT	TO REMAIN

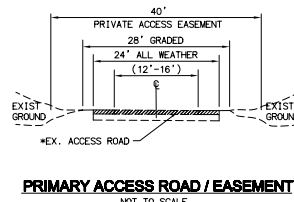
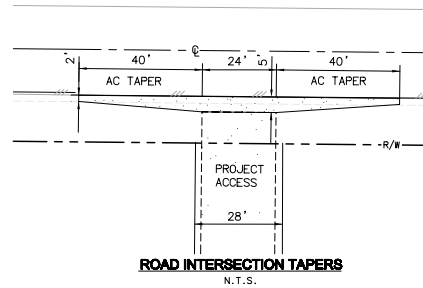
○ BASED ON DATA FROM PRELIMINARY TITLE REPORT BY CHICAGO TITLE COMPANY, ORDER NO. 930015382-050, DATED JULY 29, 2009.

RECORDED EASEMENTS

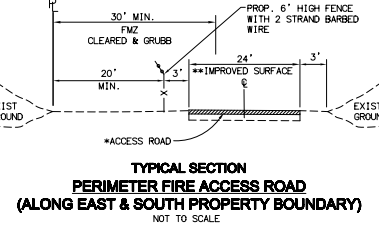
DESCRIPTION
⑥ 40' PRIVATE ACCESS/UTILITY EASEMENT - 2010-0512253
⑦ 20' PRIVATE ACCESS/UTILITY EASEMENT - 2012-0230125

EXISTING ZONING (NO CHANGE)

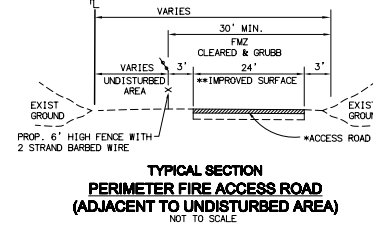
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USE REGULATIONS	S92
NEIGHBORHOOD REGULATIONS	W
DENSITY	---
LOT SIZE	8AC
BUILDING TYPE	C
MAXIMUM FLOOR AREA	---
FLOOR AREA RATIO	---
HEIGHT	G
LOT COVERAGE	---
SETBACK	D
OPEN SPACE	---
SPECIAL AREA REGULATIONS	---



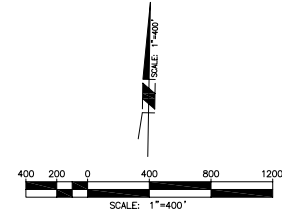
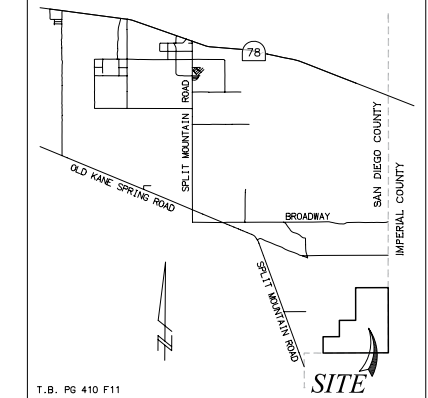
* ALL WEATHER MIN. 50,000 lbs. FIRE APPARATUS BEARING LOAD WITH BINDING AGENT.



* ALL WEATHER MIN. 50,000 lbs. FIRE APPARATUS BEARING LOAD WITH BINDING AGENT. **TYPICAL LOCATION UNLESS SHOWN OTHERWISE ON SITE PLAN.



* ALL WEATHER MIN. 50,000 lbs. FIRE APPARATUS BEARING LOAD WITH BINDING AGENT. **TYPICAL LOCATION UNLESS SHOWN OTHERWISE ON SITE PLAN.



ASSESSOR PARCEL NUMBER

253-390-57 253-390-58

LEGAL DESCRIPTION

THE SOUTHEAST QUARTER OF SECTION 36, THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, THE EAST HALF OF THE SOUTHWEST QUARTER AND THE NORTHEAST QUARTER OF SECTION 36, TOWNSHIP 12 SOUTH, RANGE 8 EAST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO UNITED STATES GOVERNMENT SURVEY.

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM (NAD83) ZONE 6, BASED LOCALLY UPON THE FOLLOWING CORP STATIONS PH P487, PH P488 & PH US62 AS PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER

BENCHMARK

ELEVATIONS AS SHOWN HEREON ARE IN TERMS OF THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) PER NGS DATA SHEETS DX0333, DX0335, & DX0338 BASED LOCALLY UPON THE FOLLOWING NGS BENCH MARKS. (NGS ELEVATIONS DERIVED FROM USING VERTCON TO CONVERT FROM NGVD29)
BM H 579 = 28.30 DATUM NAVD88
BM K 579 = 28.30 DATUM NAVD88
BM M 579 = 28.30 DATUM NAVD88

APPLICANT

GILDED BUILDING COMPANY
550 WEST C STREET, SUITE 1820
SAN DIEGO, CA 92101
(619) 683-5544
CONTACT: RICH GEISLER

SHEET INDEX

SHEET 1 - TITLE SHEET
SHEET 2 - PLOT PLAN FIXED AXIS RACK SYSTEM
SHEET 3 - PLOT PLAN SINGLE AXIS RACK SYSTEM
SHEET 4 - PLOT PLAN DUAL AXIS RACK SYSTEM
SHEET 5 - PLOT PLAN DUAL AXIS TRACKER UNITS
SHEET 6 - ELEVATIONS/DETAILS

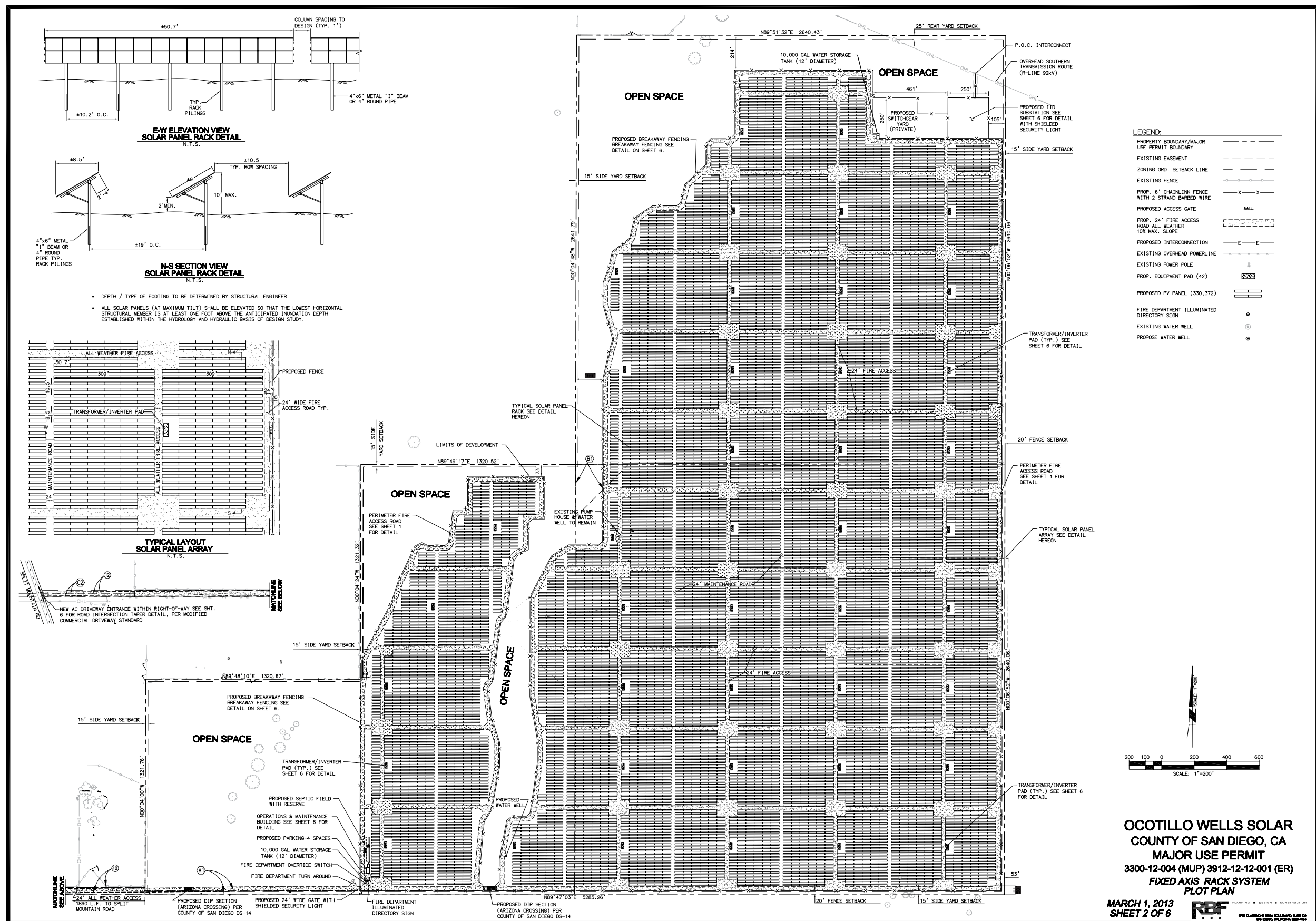
OCOTILLO WELLS SOLAR
COUNTY OF SAN DIEGO, CA
MAJOR USE PERMIT
3300-12-004 (MUP) 3912-12-12-001 (ER)

TITLE SHEET

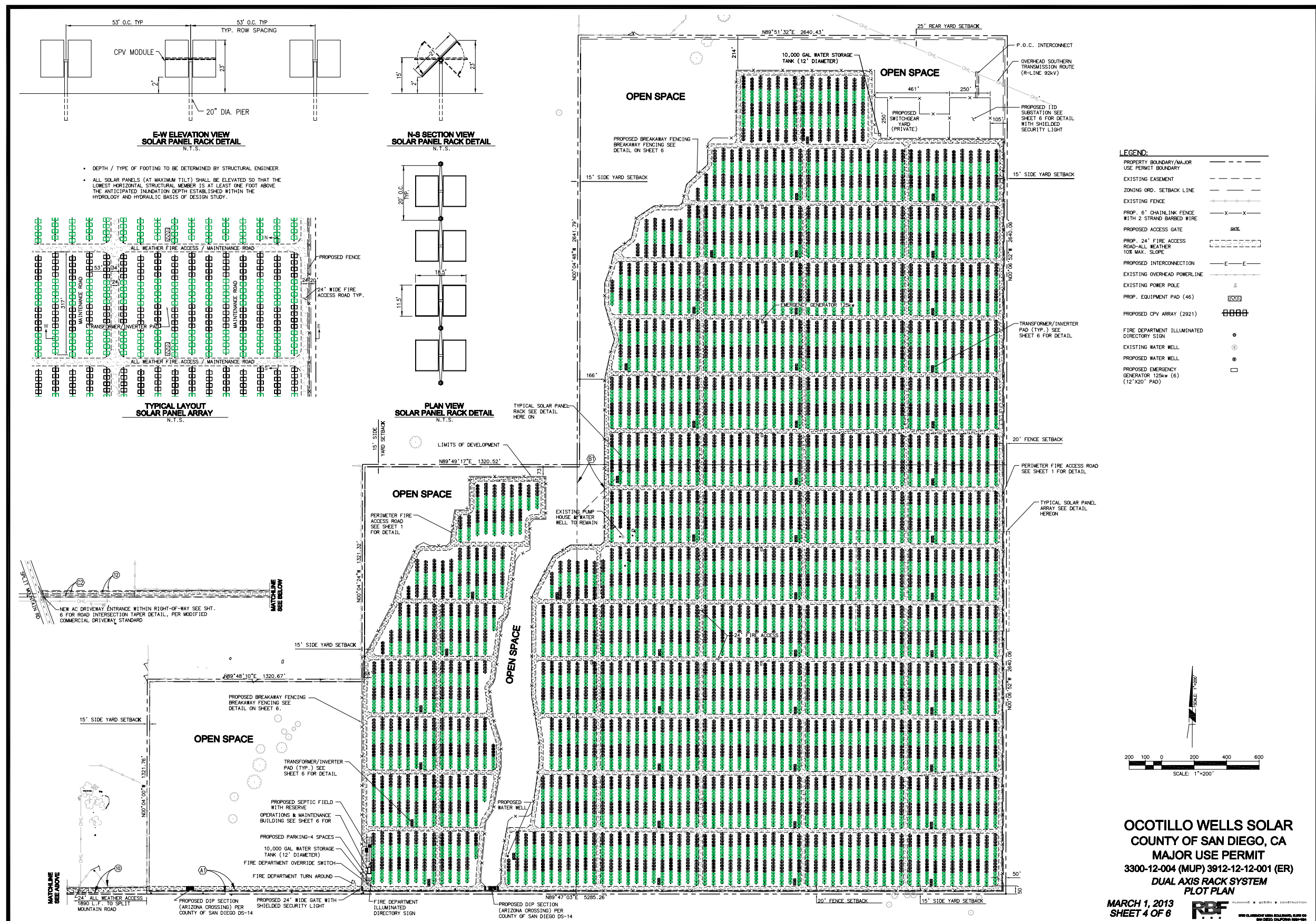
MARCH 1, 2013
SHEET 1 OF 6

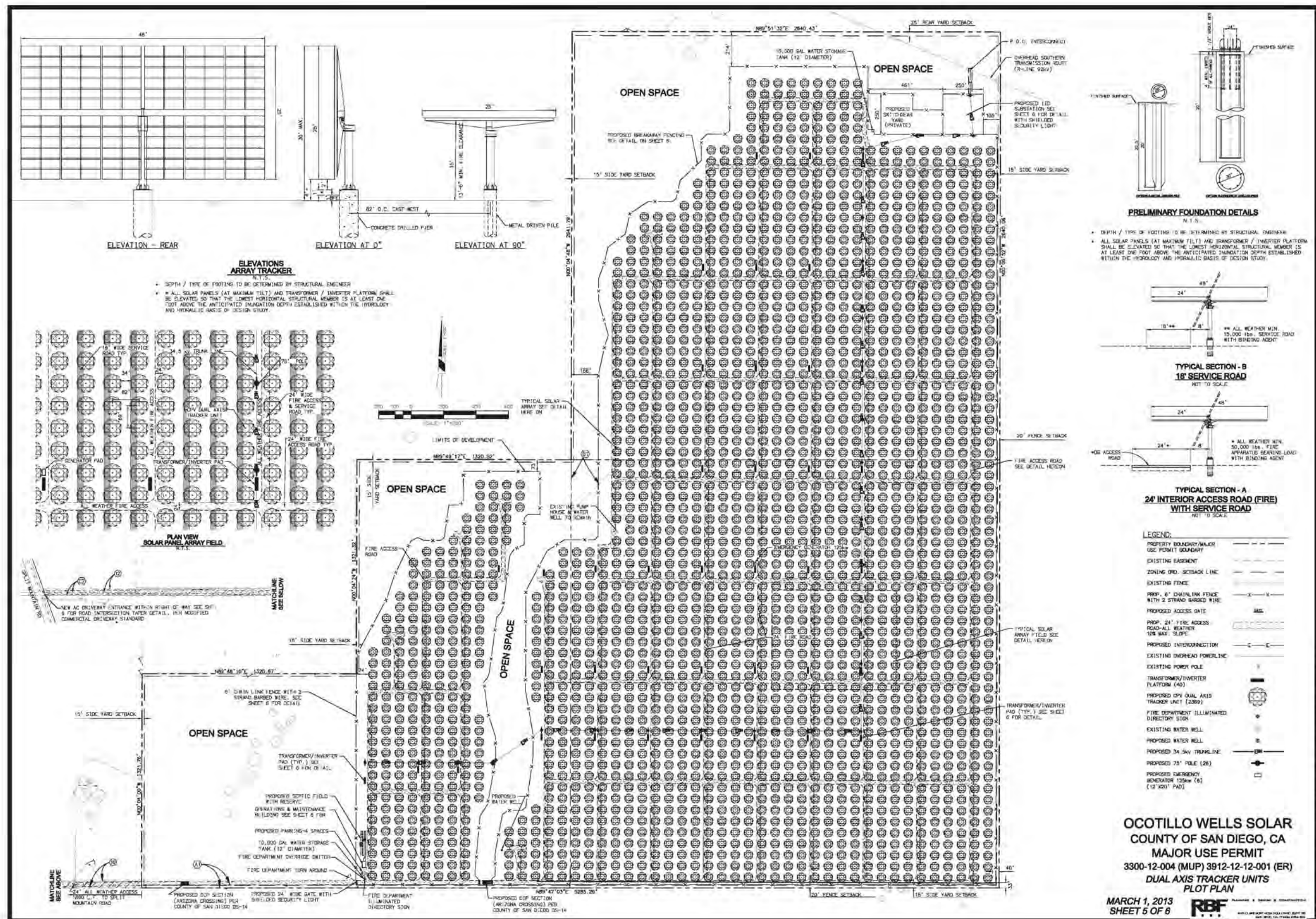


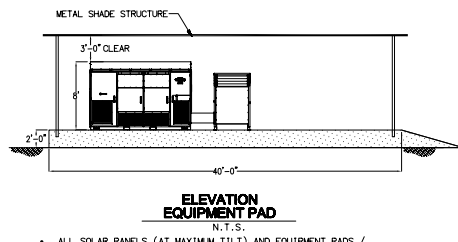
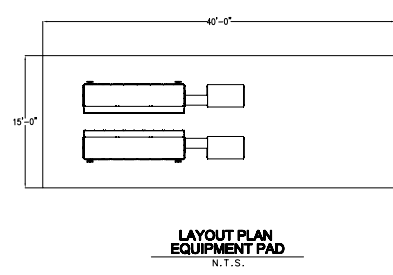
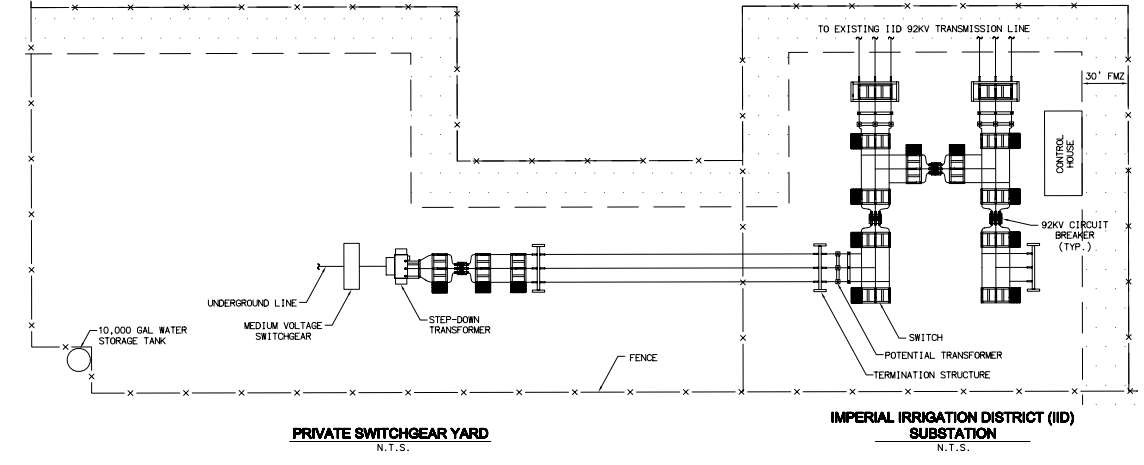
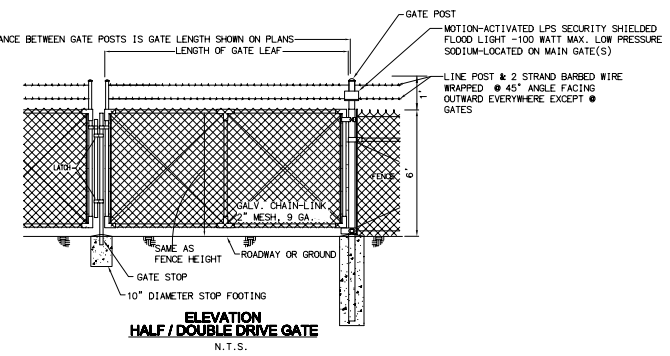
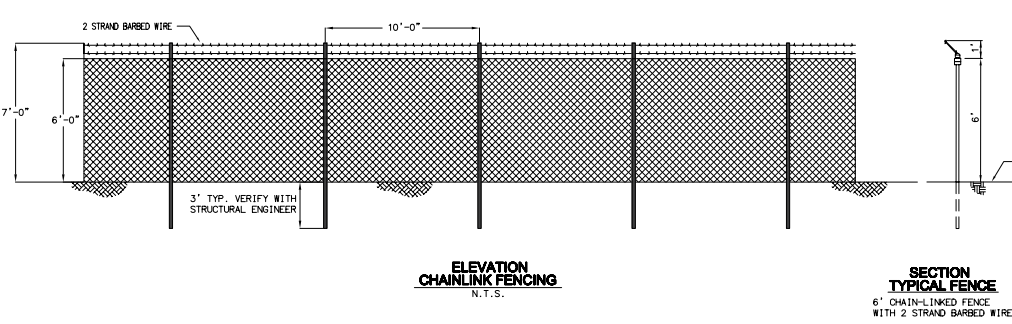
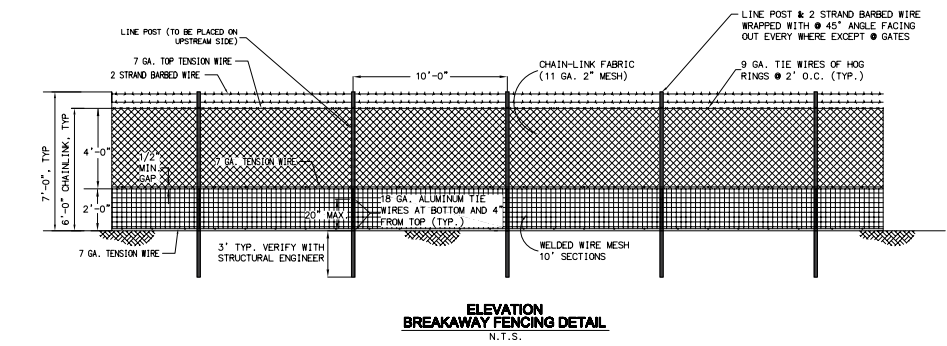
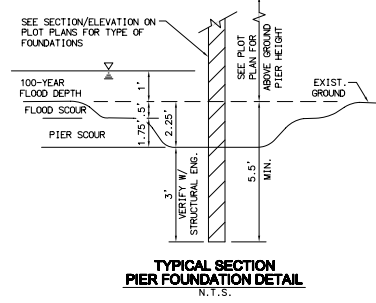
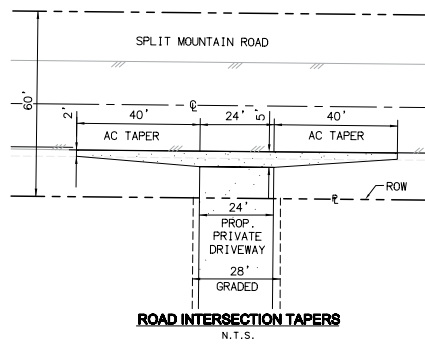
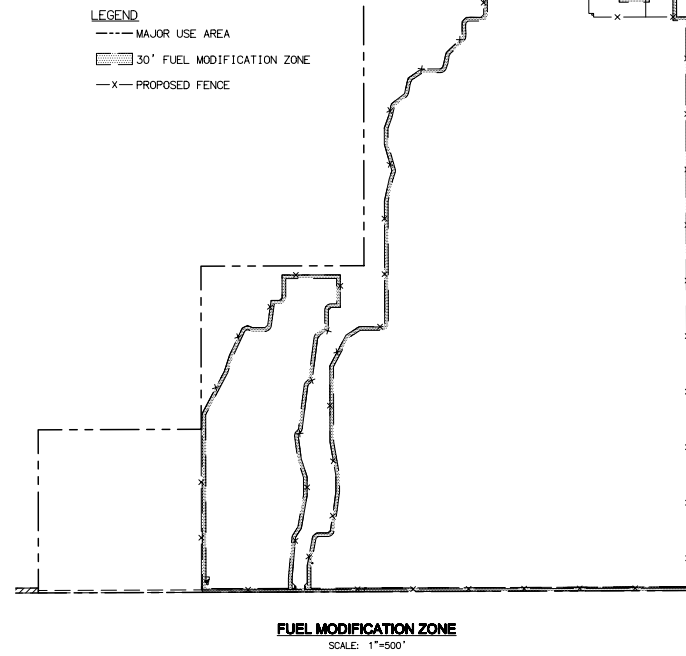
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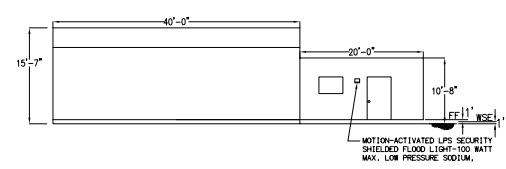
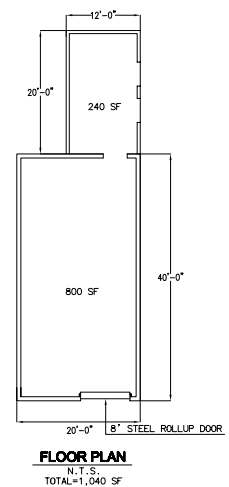
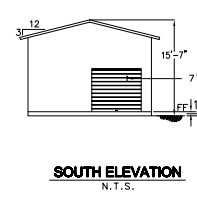








ALL SOLAR PANELS (AT MAXIMUM TILT) AND EQUIPMENT PADS / SUB-STATION SHALL BE ELEVATED SO THAT THE LOWEST HORIZONTAL STRUCTURAL MEMBER/FINISH FLOOR IS AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.

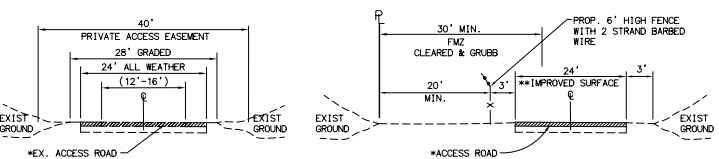


FINISH FLOOR SHALL BE ELEVATED AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.

OCOTILLO WELLS SOLAR
 COUNTY OF SAN DIEGO, CA
 MAJOR USE PERMIT
 3300-12-004 (MUP) 3912-12-12-001 (ER)

ELEVATIONS/DETAILS
 MARCH 1, 2013
 SHEET 6 OF 6
RBF CONSULTING

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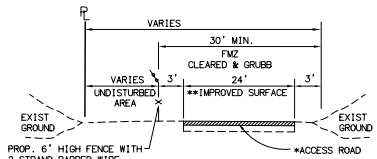


PRIMARY ACCESS ROAD / EASEMENT
NOT TO SCALE

TYPICAL SECTION PERIMETER FIRE ACCESS ROAD (ALONG EAST & SOUTH PROPERTY BOUNDARY)
NOT TO SCALE

* ALL WEATHER MIN. 50,000 lbs. FIRE APPARATUS BEARING LOAD WITH BINDING AGENT.

* ALL WEATHER MIN. 50,000 lbs. FIRE APPARATUS BEARING LOAD WITH BINDING AGENT.
**TYPICAL LOCATION UNLESS SHOWN OTHERWISE ON SITE PLAN.



TYPICAL SECTION PERIMETER FIRE ACCESS ROAD (ADJACENT TO UNDISTURBED AREA)
NOT TO SCALE

* ALL WEATHER MIN. 50,000 lbs. FIRE APPARATUS BEARING LOAD WITH BINDING AGENT.
**TYPICAL LOCATION UNLESS SHOWN OTHERWISE ON SITE PLAN.

FIXED AXIS RACK SYSTEM IMPERVIOUS SURFACES TABLE

ITEM DESCRIPTION	#	TOTAL AREA	UNIT
SUBSTATION	1	25,000	SF
SWITCHGEAR YARD	1	40,000	SF
O & M BUILDING	1	1,040	SF
TRANSFORMER/INVERTER PAD (15'x40')	42	25,200	SF
4" DIA. PIER	45,547	0.1	SF
6" DIA. PIER	2	800	SF
WATER TANK, 10,000 GAL., 12" DIA.	2	800	SF
TOTAL		92,040	SF

TOTAL IMPERVIOUS AREA BEFORE PROJECT: 0.04 AC
TOTAL IMPERVIOUS AREA AFTER PROJECT: 2.11 AC

DUAL AXIS RACK SYSTEM IMPERVIOUS SURFACES TABLE

ITEM DESCRIPTION	#	TOTAL AREA	UNIT
SUBSTATION	1	25,000	SF
SWITCHGEAR YARD	1	40,000	SF
O & M BUILDING	1	1,040	SF
TRANSFORMER/INVERTER PAD (15'x40')	46	27,600	SF
20" DIA. PIER	12,286	26.783	SF
4" DIA. PIER	2	800	SF
WATER TANK, 10,000 GAL., 12" DIA.	2	800	SF
TOTAL		121,223	SF

TOTAL IMPERVIOUS AREA BEFORE PROJECT: 0.04 AC
TOTAL IMPERVIOUS AREA AFTER PROJECT: 2.78 AC

SINGLE AXIS RACK SYSTEM IMPERVIOUS SURFACES TABLE

ITEM DESCRIPTION	#	TOTAL AREA	UNIT
SUBSTATION	1	25,000	SF
SWITCHGEAR YARD	1	40,000	SF
O & M BUILDING	1	1,040	SF
TRANSFORMER/INVERTER PAD (15'x40')	28	16,800	SF
4" DIA. PIER	45,547	0.1	SF
6" DIA. PIER	2	800	SF
WATER TANK, 10,000 GAL., 12" DIA.	2	800	SF
TOTAL		83,640	SF

TOTAL IMPERVIOUS AREA BEFORE PROJECT: 0.04 AC
TOTAL IMPERVIOUS AREA AFTER PROJECT: 1.92 AC

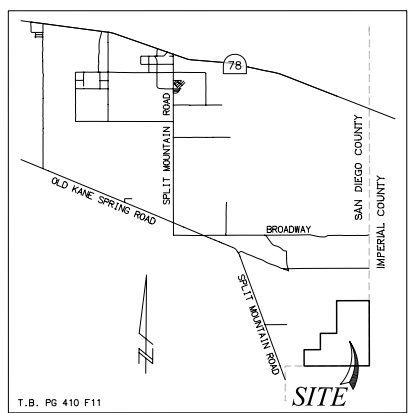
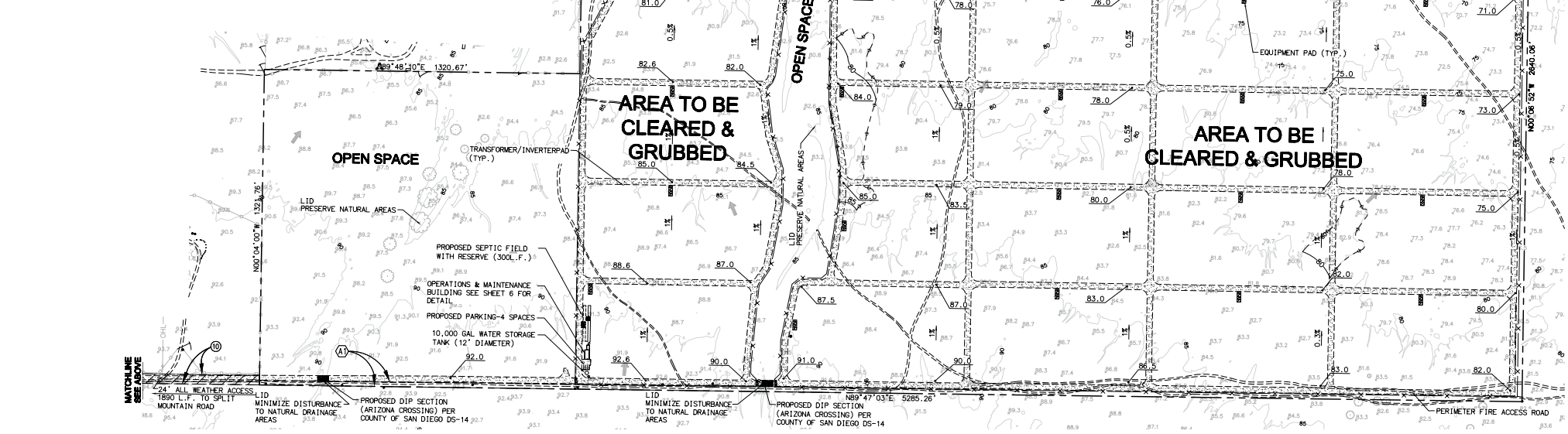
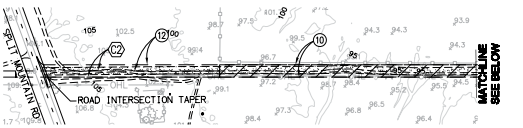
DUAL AXIS TRACKER UNITS IMPERVIOUS SURFACES TABLE

ITEM DESCRIPTION	#	TOTAL AREA	UNIT
SUBSTATION	1	25,000	SF
SWITCHGEAR YARD	1	40,000	SF
O & M BUILDING	1	1,040	SF
TRANSFORMER/INVERTER PAD (15'x40')	40	24,000	SF
24" DIA. PIER	2369	7439	SF
4" DIA. PIER	2	800	SF
WATER TANK, 10,000 GAL., 12" DIA.	2	800	SF
TOTAL		76,679	SF

TOTAL IMPERVIOUS AREA BEFORE PROJECT: 0.04 AC
TOTAL IMPERVIOUS AREA AFTER PROJECT: 1.76 AC

- LEGEND:**
- PROPERTY BOUNDARY/MAJOR USE PERMIT BOUNDARY
 - EXISTING EASEMENT
 - EXISTING CONTOUR
 - EXISTING SPOT GRADE
 - PROPOSED GRADING
 - PROPOSED SPOT GRADE
 - PROPOSED LIMITS OF GRADING
 - EXISTING FENCE
 - PROP. 6" CHAINLINK FENCE WITH 2 STRAND BARBED WIRE
 - DIRECTION OF DRAINAGE FLOW
 - EXISTING ACCESS
 - PROP. 24" FIRE ACCESS ROAD-ALL WEATHER 10% MAX. SLOPE
 - PROPOSED EQUIPMENT PAD
 - EXISTING OVERHEAD POWERLINE
 - EXISTING POWER POLE
 - EXISTING WATER WELL
 - PROPOSED WATER WELL

- NOTES**
- GROSS AREA: 440.53 ACRES
 - DEVELOPMENT AREA: 338.10 ACRES
 - TOPOGRAPHIC SOURCE: VERTICAL MAPPING, 4/20/2011
 - THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.
 - PROPOSED SLOPE RATIOS: N/A
 - ALL DISTURBED AREAS WILL BE SURFACED WITH GRAVEL OR A BINDING AGENT TO REDUCE DUST.
 - AVERAGE SLOPE: 4.1% - NO RPO STEEP SLOPES ON SITE.
 - GRADING PLAN APPLIES TO ALL FOUR SOLAR TECHNOLOGY SYSTEM ALTERNATIVES INCLUDED IN THE MAJOR USE PERMIT APPLICATION. GRADINGS, ROADS AND EQUIPMENT PADS LOCATIONS ARE SHOWN AS TYPICAL.



EXISTING EASEMENTS

DESCRIPTION	DISPOSITION
ACCESS EASEMENT - BOY SCOUTS OF AMERICA	TO REMAIN
ACCESS EASEMENT - GILDED BUILDING CO.	TO QUITCLAIM
20' PUBLIC HIGHWAY EASEMENT	TO REMAIN
20' PUBLIC HIGHWAY EASEMENT	TO REMAIN
40' PRIVATE ACCESS/UTILITY EASEMENT	TO REMAIN

○ BASED ON DATA FROM PRELIMINARY TITLE REPORT BY CHICAGO TITLE COMPANY, ORDER NO. 930015382-USO, DATED JULY 29, 2009.

RECORDED EASEMENTS

DESCRIPTION
40' PRIVATE ACCESS/UTILITY EASEMENT - 2010-0512253
20' PRIVATE ACCESS/UTILITY EASEMENT - 2012-0230125

- SUMMARY OF LID/SITE DESIGN BMPs**
- PRESERVE NATURAL AREAS
 - MINIMIZE DISTURBANCE TO NATURAL DRAINAGE AREAS
 - MINIMIZE & DISCONNECT IMPERVIOUS SURFACES
 - MINIMIZE SOIL COMPACTION
 - UNMANNED FACILITY, PERSONNEL WILL ONLY BE ON SITE IN THE EVENT OF REQUIRED MAINTENANCE ACTIVITIES
- SUMMARY OF SOURCE CONTROL BMPs**
- EQUIPMENT CLEANING (SOLAR PANELS, NOT VEHICLES OR OTHER MECHANICAL EQUIPMENT) WILL BE TERMINATED PRIOR TO CAUSING RUNOFF
 - BINDING AGENT TO ALL ACCESS ROADS AND ON ALL DISTURBED OR EXPOSED SURFACE AREAS

TOPOGRAPHY AND GRADING

VOLUME OF CUT: 370,000 CY
VOLUME OF FILL: 370,000 CY
EXPORT/IMPORT: 0 CY
GRADING QUANTITIES SHOWN ARE RAIN OUT AND FILL VOLUMES.

MAXIMUM SITE RETAINING WALL HEIGHT: N/A
OUT SLOPE HEIGHT: N/A
FILL SLOPE HEIGHT: N/A

TOTAL DISTURBED AREA BEFORE PROJECT: 4.00 AC
TOTAL DISTURBED AREA AFTER PROJECT: 338.10 AC

ASSESSOR PARCEL NUMBER

253-390-57 253-390-58

LEGAL DESCRIPTION

THE SOUTHWEST QUARTER OF SECTION 36, THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, THE EAST HALF OF THE SOUTHWEST QUARTER AND THE NORTHWEST QUARTER OF SECTION 36, TOWNSHIP 12 SOUTH, RANGE 8 EAST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO UNITED STATES GOVERNMENT SURVEY.

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM (NAD83) ZONE 6, BASED LOCALLY UPON THE FOLLOWING CORN STATIONS PH P487, PH P488 & PH USGC AS PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER

BENCHMARK

ELEVATIONS AS SHOWN HEREON ARE IN TERMS OF THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) PER NGS DATA SHEETS DX0333, DX0335, & DX0338 BASED LOCALLY UPON THE FOLLOWING NGS BENCH MARKS. (NGS ELEVATIONS DERIVED FROM USING VERTCON TO CONVERT FROM NAVD83)

BM H 579 = 28.30 DATUM: NAVD88
BM K 579 = 28.30 DATUM: NAVD88
BM M 579 = 28.30 DATUM: NAVD88

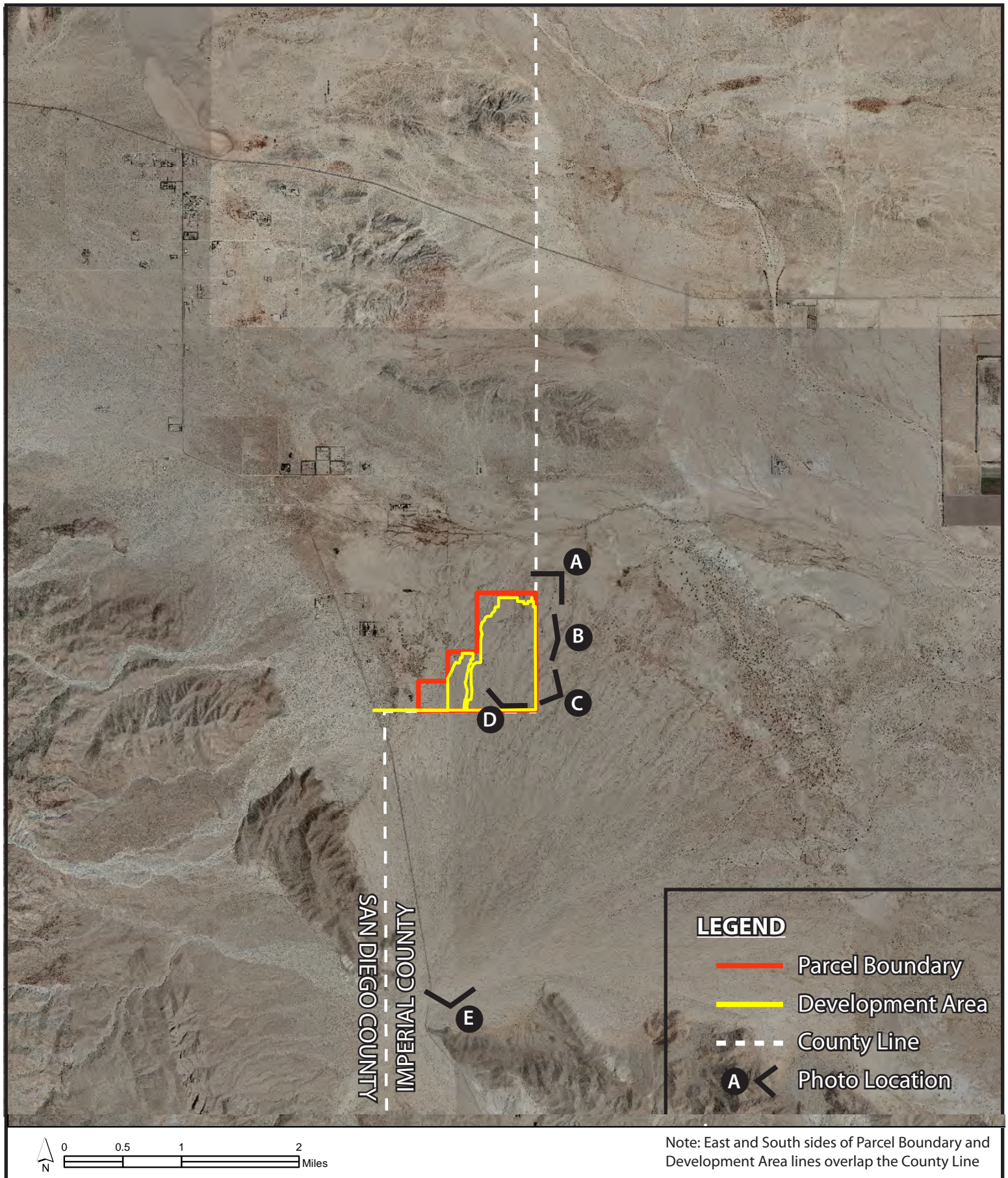
OWNER/APPLICANT

GILDED BUILDING COMPANY
650 WEST C STREET, SUITE 1820
SAN DIEGO, CA 92101
(619) 683-5544
CONTACT: RICH KEISLER

OCOTILLO WELLS SOLAR
COUNTY OF SAN DIEGO, CA
PRELIMINARY GRADING PLAN
3300-12-004 (MUP) 3912-12-001 (ER)

MARCH 1, 2013
SHEET 1 OF 1

RBF CONSULTING



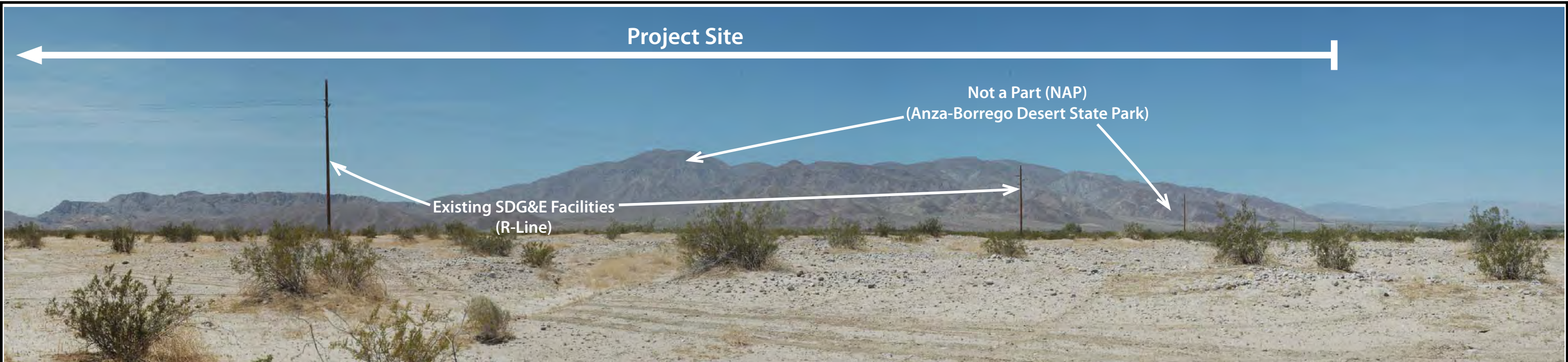


Photo A: View looking southwest across Project Site from northeast corner.

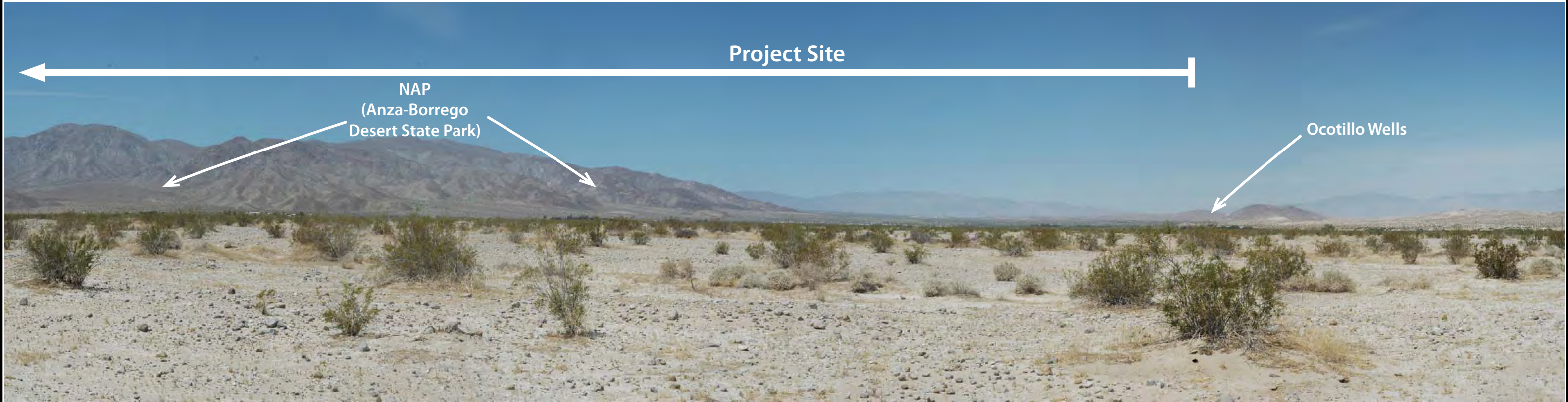


Photo B: View looking southwest to northwest from eastern property boundary.



Photo C: View looking west/northwest across Project Site from southeastern property boundary.



Photo D: View looking north/northwest across Project Site from southern property boundary.

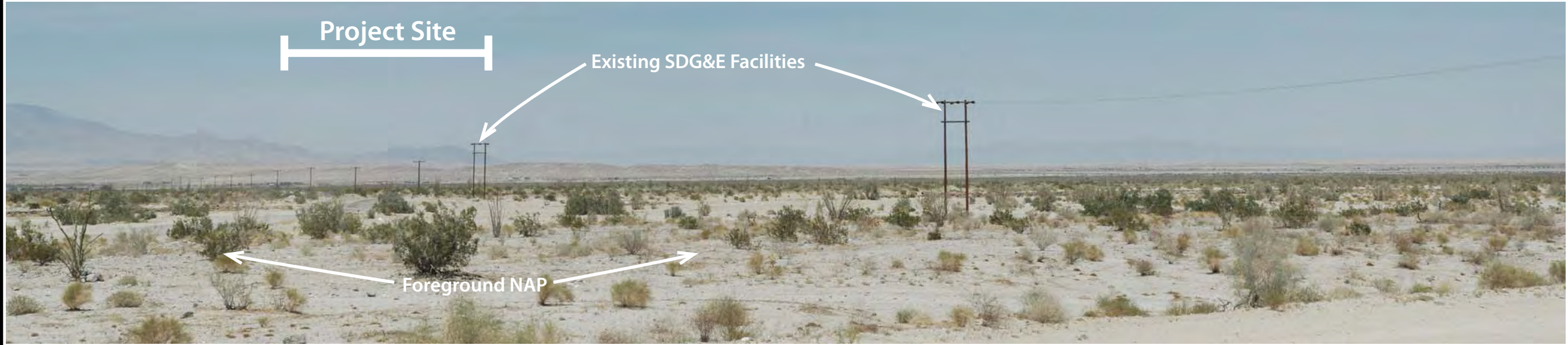
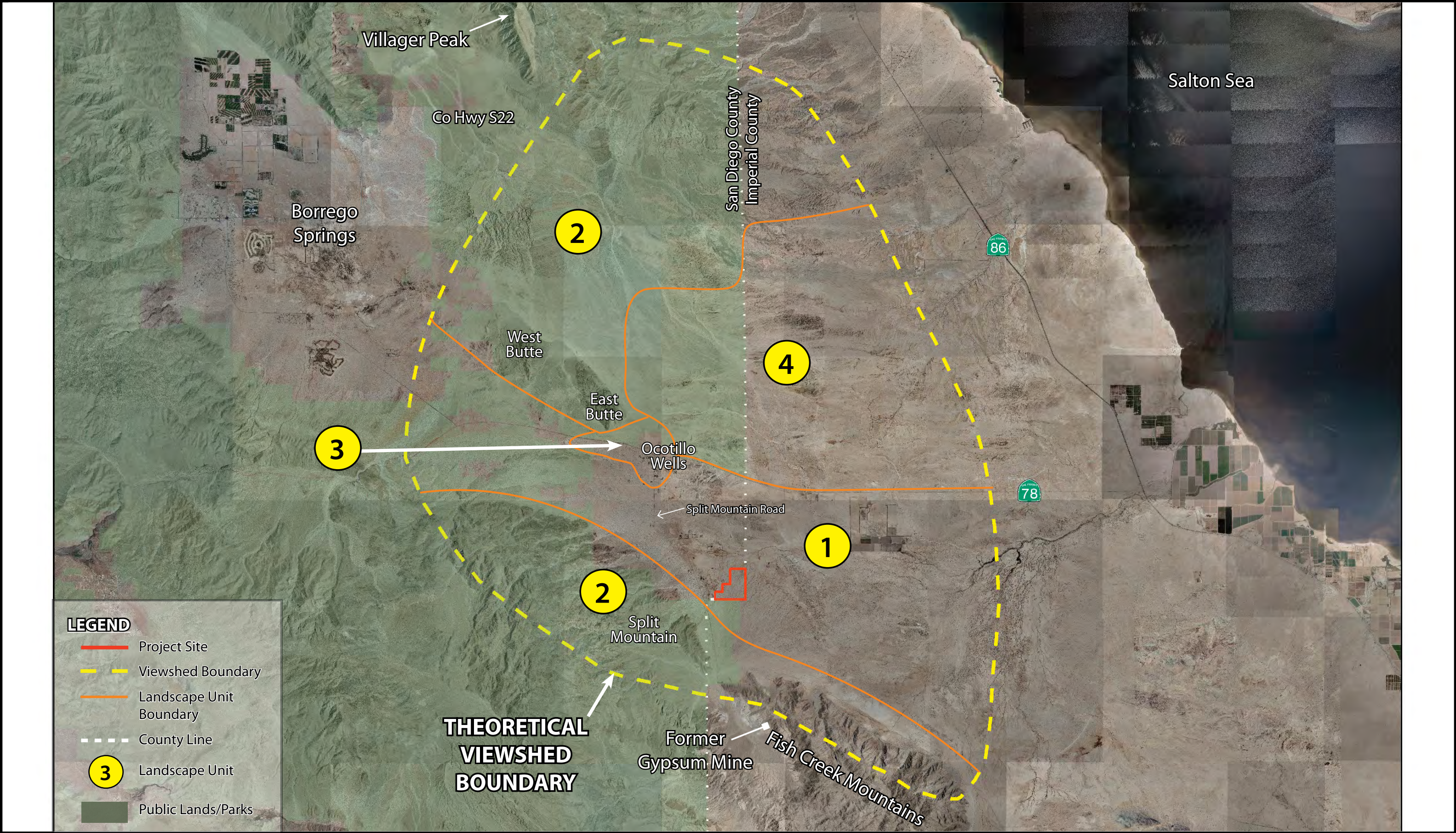
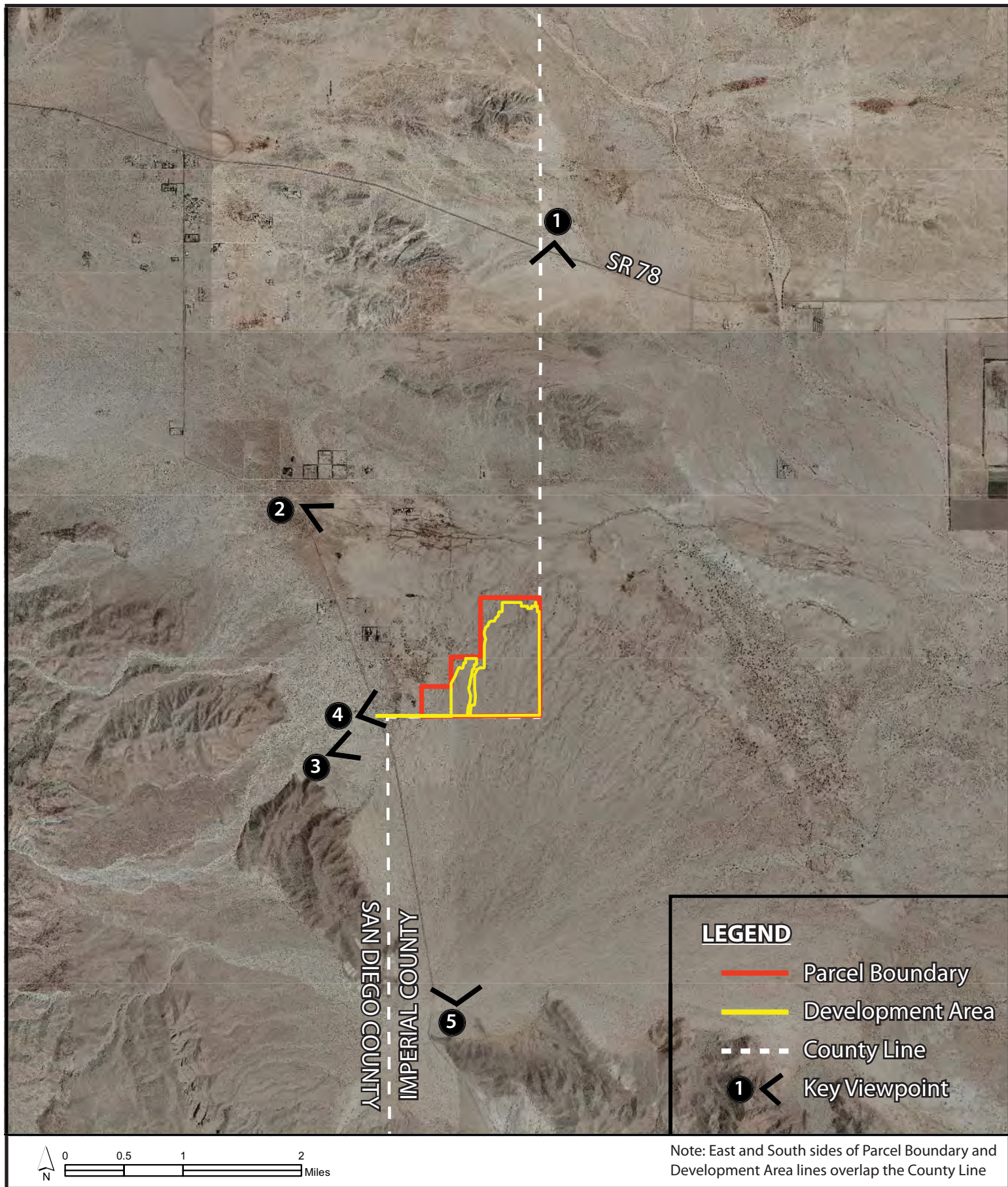
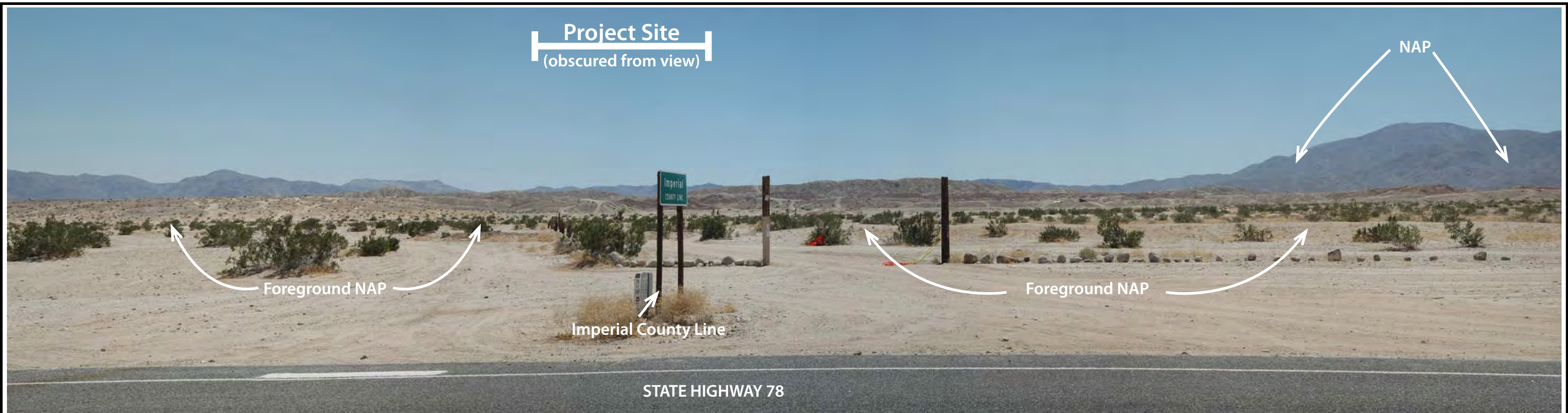


Photo E: (Off-site) View looking north from south of Project Site (Anza-Borrego Desert State Park).



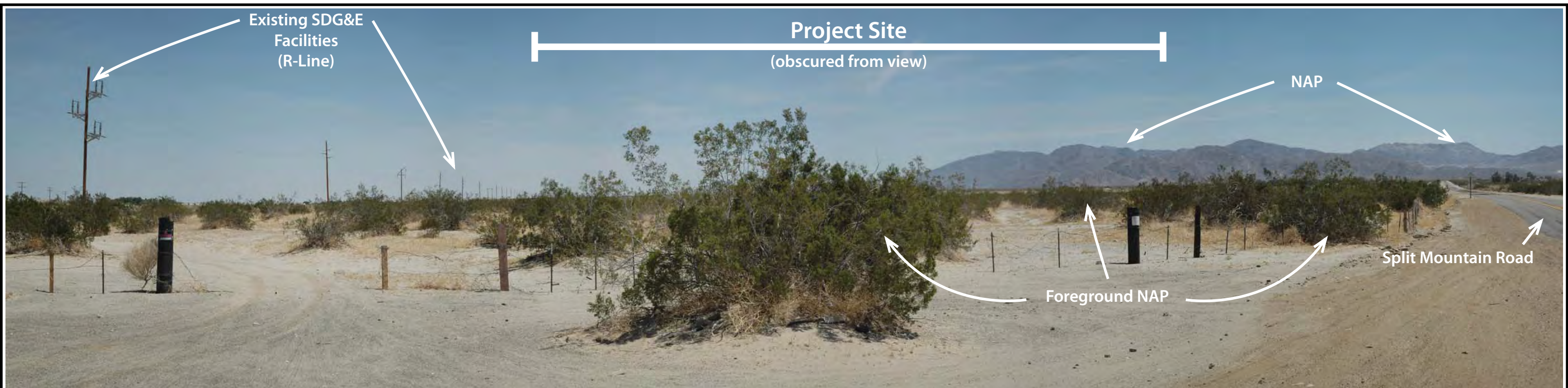




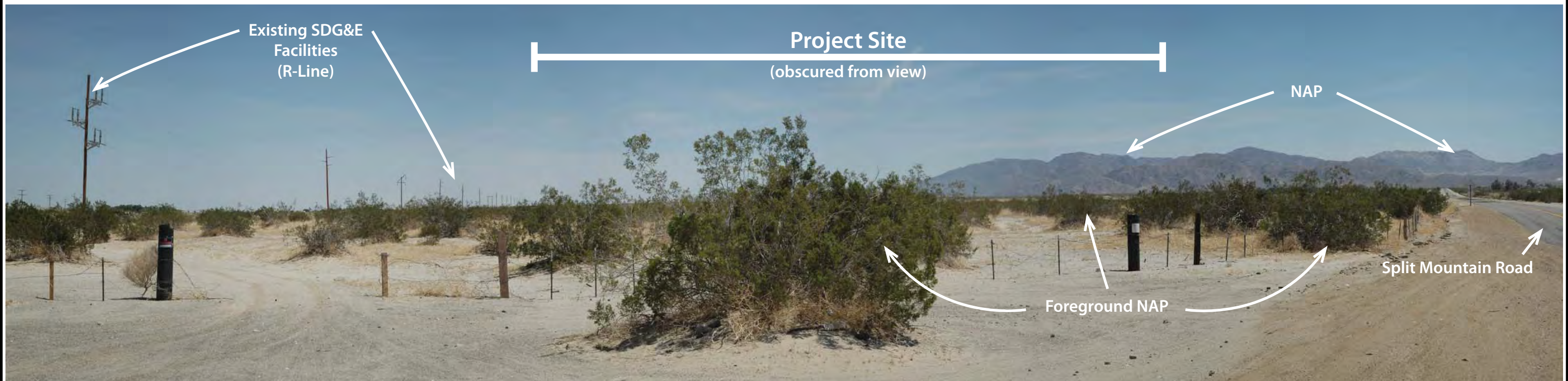
View 1A: Existing view looking south from State Highway 78.



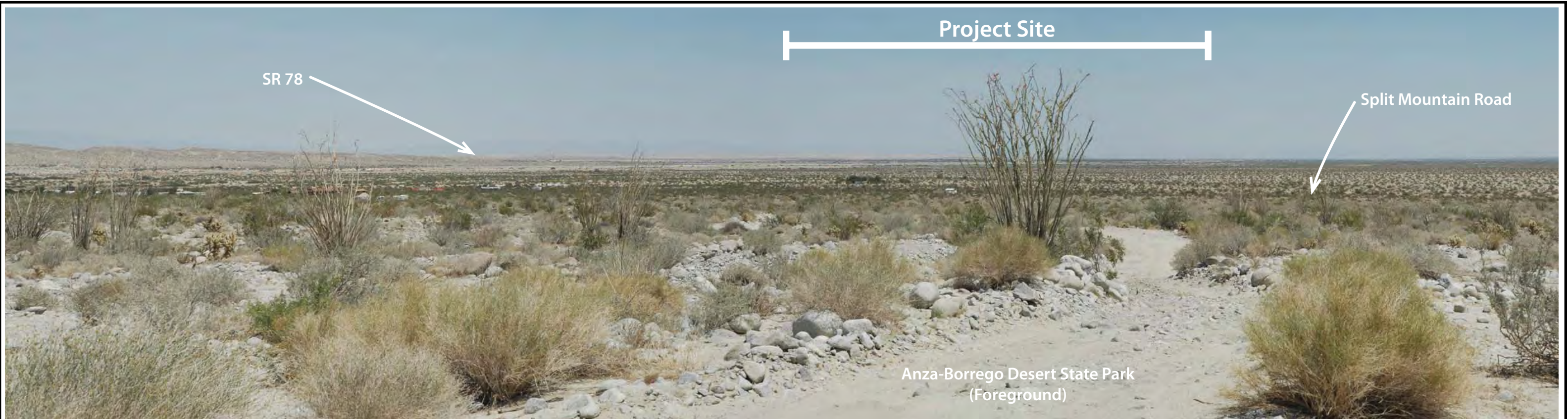
View 1B: Proposed view looking south from State Highway 78.



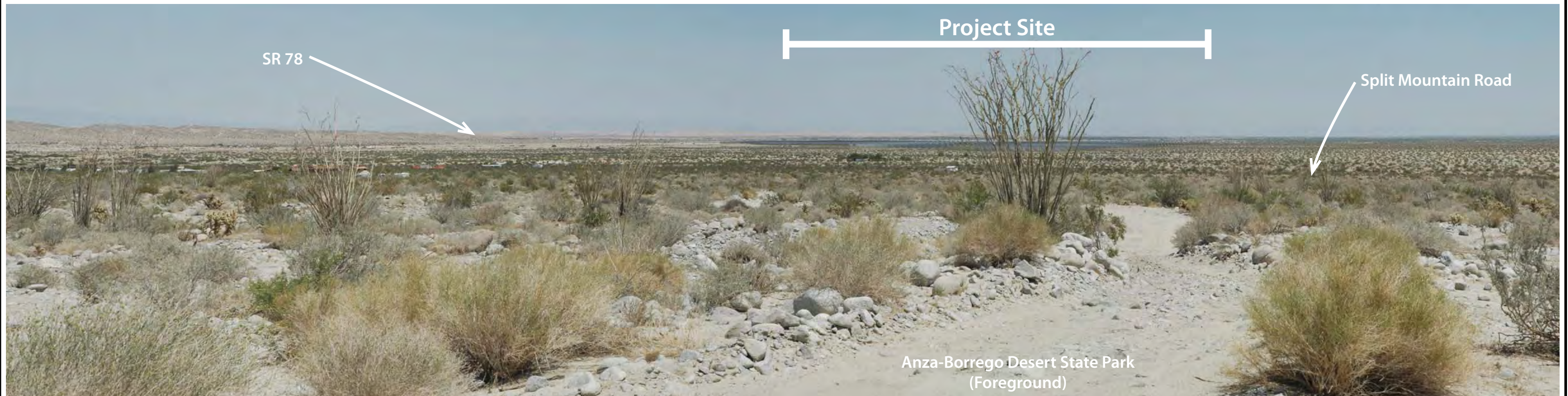
View 2A: Existing view looking southeast from Split Mountain Road near existing Ocotillo Substation.



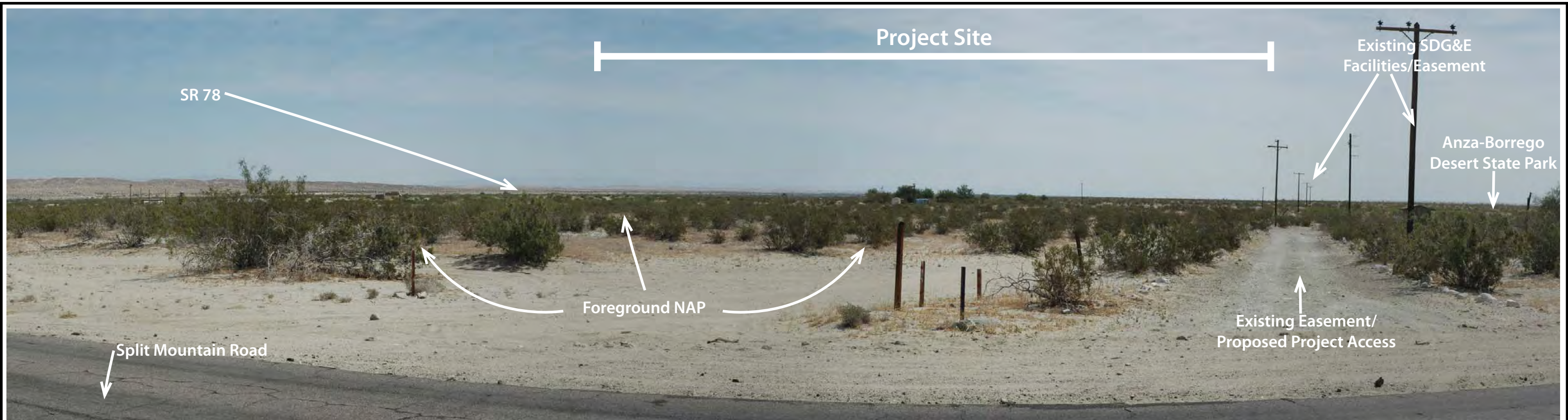
View 2B: Proposed view looking southeast from Split Mountain Road near existing Ocotillo Substation.



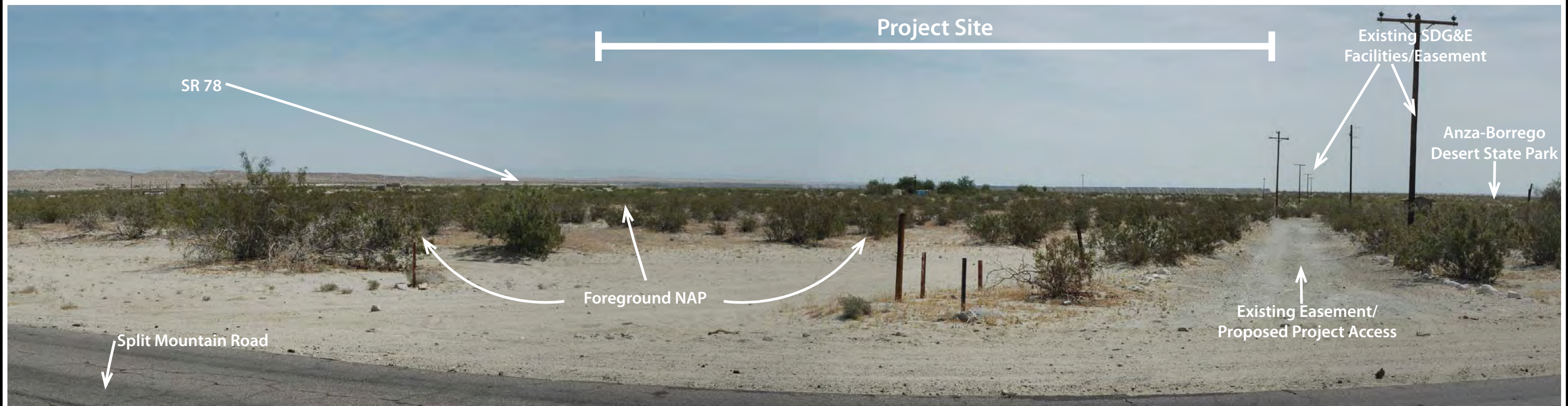
View 3A: Existing view looking northeast from Anza-Borrego Desert State Park.



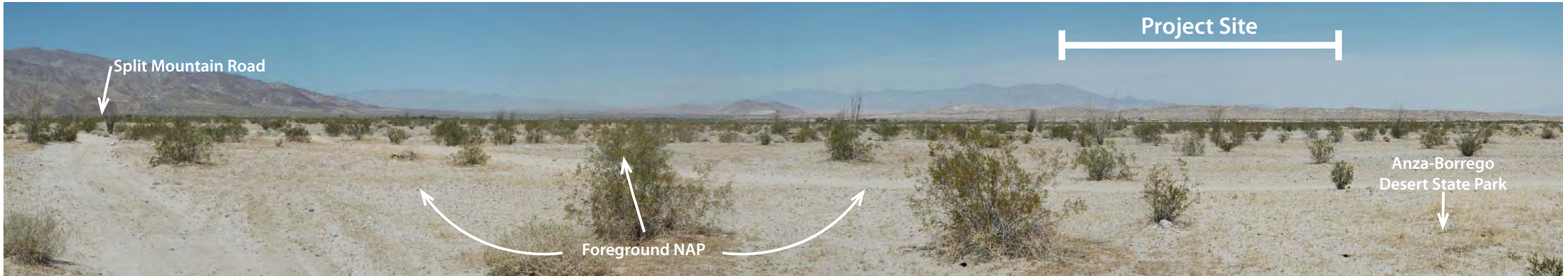
View 3B: Proposed view looking northeast from Anza-Borrego Desert State Park.



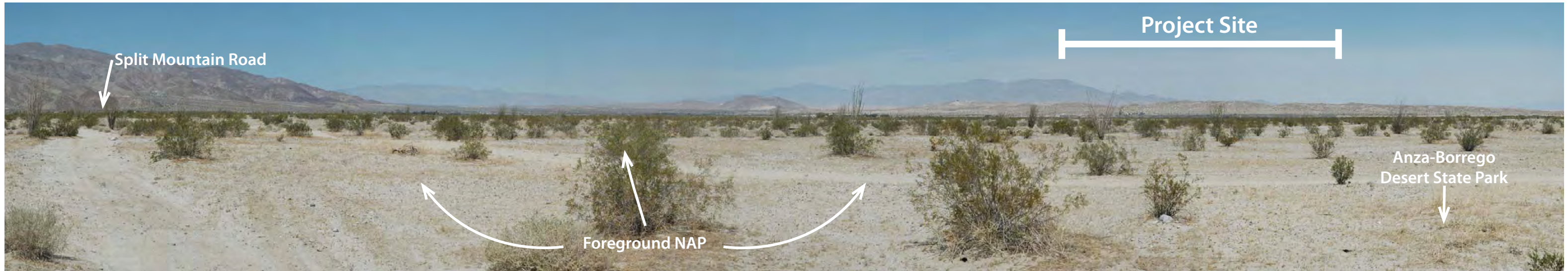
View 4A: Existing view looking east from Split Mountain Road near Project Site.



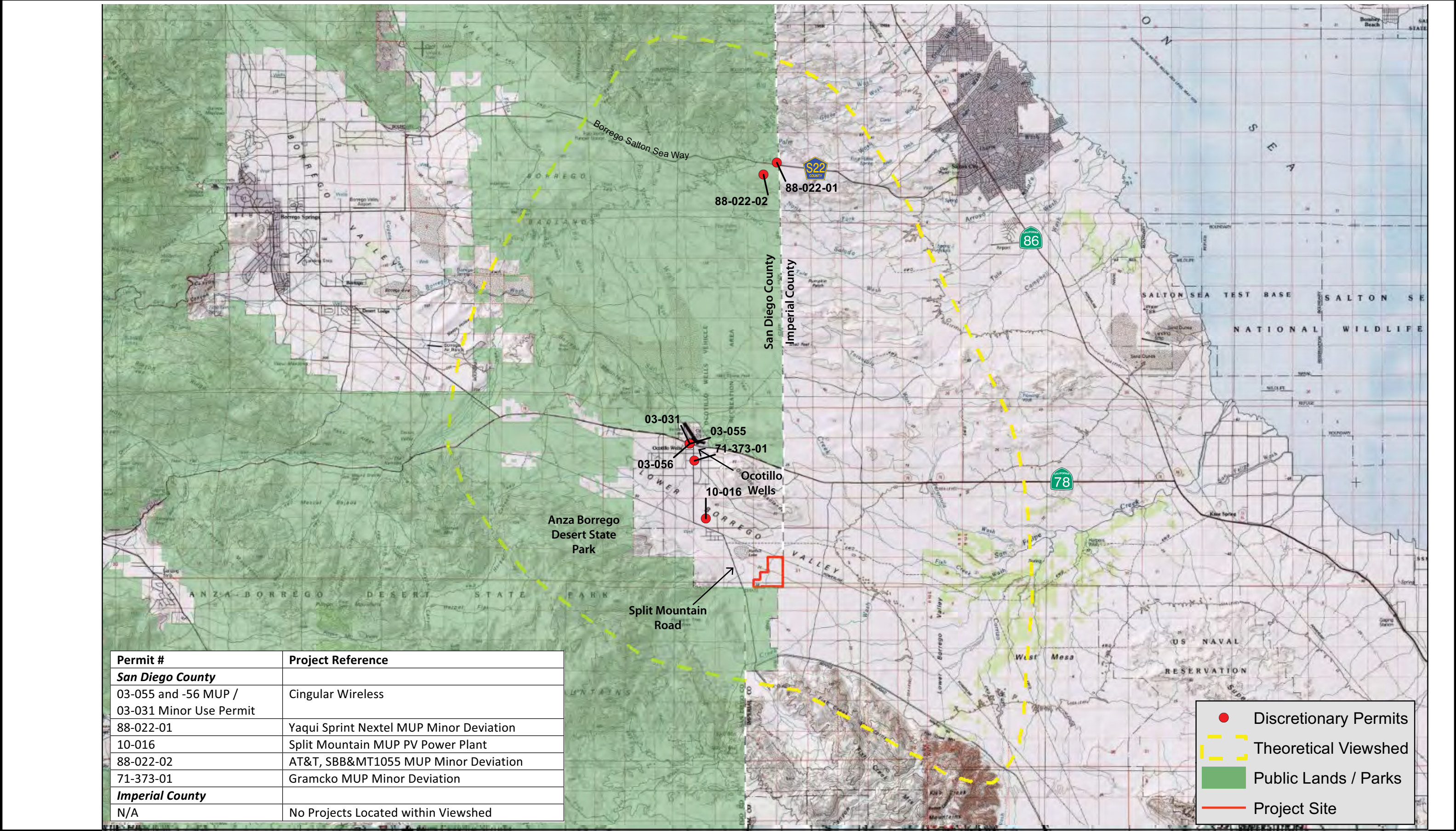
View 4B: Proposed view looking east from Split Mountain Road near Project Site.



View 5A: Existing view looking north from the railroad tracks near Project Site.



View 5B: Proposed view looking north from the railroad tracks near Project Site.



Ocotillo Wells Solar Farm

Project Conformance with Applicable Plans

County of San Diego General Plan Update

The County of San Diego General Plan Update (adopted August 3, 2011) is intended to provide guidance for the long-term development of San Diego County. The General Plan Update includes various Elements that provide guidance for accommodating future growth while retaining or enhancing the County's rural character, its economy, its environmental resources, and its unique communities. Goals, policies and objectives are provided within each of the Elements to guide future land development and ensure consistency with the County's intended vision for the future of San Diego County. The Guiding Principles of the General Plan Update are to:

- ∞ Support a reasonable share of projected regional population growth;
- ∞ Promote health and sustainability by locating new growth near existing and planned infrastructure, services, and jobs in a compact pattern of development;
- ∞ Reinforce the vitality, local economy, and individual character of existing communities when planning new housing, employment, and recreational opportunities;
- ∞ Promote environmental stewardship that protects the range of natural resources and habitats that uniquely define the County's character and ecological importance;
- ∞ Ensure that development accounts for physical constraints and the natural hazards of the land;
- ∞ Provide and support a multi-modal transportation network that enhances connectivity and supports community development patterns and, when appropriate, plan for development which supports public transportation;
- ∞ Maintain environmentally sustainable communities and reduce greenhouse gas emissions that contribute to climate change;
- ∞ Preserve agriculture as an integral component of the region's economy, character, and open space network;
- ∞ Minimize public costs of infrastructure and services and correlate their timing with new development; and,
- ∞ Recognize community and stakeholder interests while striving for consensus.

Chapter 3 - Land Use Element

Planning for Sustainability

Policies

- ∞ **LU-6.9 Development Conformance with Topography.** Require development to conform to the natural topography to limit grading; incorporate and not significantly alter the dominant physical characteristics of a site; and, to utilize natural drainage and topography in conveying storm water to the maximum extent practicable.

Although the majority of land surface in the MUP area is flat, portions would be cleared and grubbed to allow for installation of the panels and associated facilities. An estimated 338 acres would be brushed and cleared of vegetation. Within this area, overall Project grading would vary depending upon the type of solar technology installed, but is estimated to require a maximum of approximately 370,000 cubic yards (c.y.). This total would include approximately 20,000 c.y. of balanced cut and fill, in addition to removal and recompaction of approximately 350,000 c.y. of soil (disturbance to a depth of eight inches over the 338-acre development area) to prepare the site for installation of the solar facilities; however, as the site is generally flat, no significant changes to the overall visual character of the site topography would occur with Project grading. A significant increase in storm water runoff or treatment needs from the areas affected by the Project is not anticipated to occur. Storm water runoff in areas where facilities would be installed would remain generally unchanged following construction. In addition, the solar panels and supporting structures would occupy a minimal building footprint on the affected properties and would not require or result in a significant change in existing conditions with regard to storm water runoff or treatment needs. “Breakaway” fencing would be installed along those portions the boundary of the development area along segments where storm water flows would occur perpendicular to the fence to ensure that the fence gives way in the event of a flood, thereby eliminating potential obstruction of the flow of floodwaters and associated debris. As applicable, storm water runoff and treatment would be adequately handled through the implementation of onsite best management practices (BMPs) and/or other design measures and would not result in or require significant changes to existing offsite storm drain facilities.

Semi-Rural/Rural Lands

Policies

- ∞ **LU-10.2 Development - Environmental Resource Relationship.** Require development in Semi-Rural and Rural areas to respect and conserve the unique natural features and

rural character and avoid sensitive or intact environmental resources and hazard areas.

The Project site has a County General Plan land use designation of (RL-80) Rural Lands. The Project has been designed to avoid or minimize potential impacts to natural resources and to largely mimic the natural onsite topography by minimizing grading requirements. Project components have also been designed to minimize potential effects on the existing visual landscape with regard to height and scale, as well as overall visibility, and would be low-lying within the viewshed, and not conflict with the character of other structural elements on surrounding lands. The Project design does not include landscape screening; however, the Project site is distanced from sensitive public vantage points, and existing vegetation along the desert floor, combined with the relatively flat viewing plane, would reduce the visibility of Project elements. No hazardous areas have been identified on the site that would interfere with the proposed development.

Infrastructure and Services Supporting Development

Policies

- 80 **LU-12.4 Planning for Compatibility.** Plan and site infrastructure for public utilities and public facilities in a manner compatible with community character, minimize visual and environmental impacts, and whenever feasible, locate any facilities and supporting infrastructure outside preserve areas. Require context sensitive Mobility Element road design that is compatible with community character and minimizes visual and environmental impacts; for Mobility Element roads identified in Table M-4, an LOS D or better may not be achieved.

The proposed solar farm would be allowed under the existing General Plan and zoning designations with County approval of a MUP and is therefore consistent with the County's intended use for the property. The Project has also been designed to minimize potential visual effects with regard to height and scale, and would not be visibly incompatible with structural elements on surrounding lands. The Project does not propose any improvements to offsite roadways, with exception of minor improvements to a 24-foot wide all-weather paved road over a 40-foot access/utility easement that extends eastward to the southwestern boundary of the 280-acre parcel that will provide primary access to the Project site.

Additionally, the Project site is not located within a preserve area. The Project has been designed to minimize environmental impacts through site design measures, and all significant environmental impacts identified can be reduced to less than significant through the implementation of mitigation measures, as appropriate.

Chapter 5 – Conservation and Open Space Element

Visual Resources

Goal COS-11

- ∞ **Preservation of Scenic Resources.** Preservation of scenic resources, including vistas of important natural and unique features, where visual impacts of development are minimized.

Policies

- ∞ **COS-11.1 Protection of Scenic Resources.** Require the protection of scenic highways, corridors, regionally significant scenic vistas, and natural features, including prominent ridgelines, dominant landforms, reservoirs, and scenic landscapes.
- ∞ **COS-11.2 Scenic Resource Connections.** Promote the connection of regionally significant natural features, designated historic landmarks, and points of regional historic, visual, and cultural interest via designated scenic corridors, such as scenic highways and regional trails.

No regionally significant vistas, prominent ridgelines, dominant landforms, or reservoirs are present on the Project site. Additionally, no regionally significant natural features, designated historic landmarks, or points of regional historic or cultural interest occur onsite.

No existing or planned public recreational trails are identified onsite or in the immediate Project vicinity per the County's adopted County of San Diego Regional Trails Plan; however, the Project site is bordered to the south by the Anza-Borrego Desert State Park, which does contain a number of public recreational trails.

No designated scenic roadways are located directly adjacent to the site; however, the Project would potentially be briefly visible from limited vantage points along State Highway 78, located approximately three miles to the north of the Project site. State Highway 78 is designated as a State Scenic Highway through the Anza-Borrego Desert State Park (18.2-mile segment). Additionally, State Highway 78 is designated as a County Scenic Highway from Wynola Road east to the Imperial County line (excluding the portion that traverses the Anza-Borrego Desert State Park).

In addition, County Route S2 from the Imperial County line north to State Route 78 and S22 from State Route 79 east to the Imperial County line are also designated as official County Scenic Highways; however, due to distance from the Project site, combined with intervening topography, views of the Project are not anticipated to occur from these roadways.

To reduce the potential for the Project to adversely affect or alter views from offsite public vantage points, the proposed Project site is distanced from public roadways (Split Mountain Road, SR 78) within the area. The visibility of the Project components would be further reduced through Project design that minimizes the height and scale of the Project components and allows the resulting topography of the site following grading activities to reflect the existing relatively flat character of the property. Although the Project does not propose landscaping for screening purposes, natural vegetation within the visual landscape would enhance the rural character of the site and its surroundings. Views of the site would generally be limited and would not be significantly changed from that which presently exists due to distance to the site, a generally level viewing plane, other development within the valley floor, and established vegetation. Other onsite structures (i.e. substation, inverter enclosures) would also not be readily apparent, due to limited structural height and distance to the site.

For these reasons, the Project is not anticipated to adversely affect vistas of important natural or unique features, scenic highways, corridors, regionally significant scenic vistas, or other natural features. Refer also to Section 5.5, Significance Criteria #3, of the Visual Resources Analysis for a more in-depth discussion of views from public trails and recreational areas in the Project vicinity.

∞ **COS-11.3 Development Siting and Design.** Require development within visually sensitive areas to minimize visual impacts and to preserve unique or special visual features, particularly in rural areas, through the following:

- Creative site planning;
- Integration of natural features into the project;
- Appropriate scale, materials, and design to complement the surrounding natural landscape;
- Minimal disturbance of topography;
- Clustering of development so as to preserve a balance of open space vistas, natural features, and community character; and,
- Creation of contiguous open space networks.

Project grading activities would total approximately 20,000 c.y. of balanced cut and fill, in addition to removal and recompaction of approximately 350,000 c.y. of soil (disturbance to a depth of eight inches over the 338-acre development area) to prepare the site for installation of the solar facilities; however, as the site is generally flat, no significant changes to the overall visual character of the site topography would occur with Project grading. As stated previously, the Project components as proposed are of relatively limited height and scale in order to minimize the visibility of such elements within the visual landscape. Existing vegetation along the valley floor in the vicinity of the MUP area would further blend the

Project components into the landscape and reflect the rural character of the surrounding natural landscape. The Project is not adjacent to any open space areas; however, the Anza-Borrego State Park borders the site to the south. As designed, development would affect a 336.4-acre portion of the 440-acre site, allowing the remainder to remain in its current natural state.

- ∞ **COS-11.5 Collaboration with Private and Public Agencies.** Coordinate with the California Public Utilities Commission, power companies, and other public agencies to avoid siting energy generation, transmission facilities, and other public improvements in locations that impact visually sensitive areas, whenever feasible. Require the design of public improvements within visually sensitive areas to blend into the landscape.

The Project site is not located adjacent to any County designated Scenic Highways according to the Conservation and Open Space Element of the General Plan Update, and no visually sensitive areas are within close proximity. The Project has been designed to minimize the potential visual effects of the Project components on existing views with regard to height and scale; distance the MUP development area from nearby public roadways (Split Mountain Road, SR 78); and, minimize grading and Project height and scale in order to blend the development into the surrounding landscape and respect the existing community character.

- ∞ **COS-11.7 Underground Utilities.** Require new development to place utilities underground and encourage “undergrounding” in existing development to maintain viewsheds, reduce hazards associated with hanging lines and utility poles, and to keep pace with current and future technologies.

Within the Project boundaries, panel arrays would be electrically connected into panel strings using wiring attached to the racking. Panel strings would be electrically connected to each other via underground wiring.

The Project design for each of the four solar technologies considered includes construction of one onsite substation, which will be under the control of the Imperial Irrigation District (IID) for operational purposes. The energy generated by the Project with any of the four alternative technology systems would be transmitted via a central overhead 34kV collection line to the substation proposed in the northeast corner of the site, adjacent to an existing 92 kilovolt (kV) “R-Line” that runs through the northeastern corner of the affected parcel. The solar farm is proposed to be connected to the R-Line with an interconnection agreement with the IID. The R-Line runs aboveground and ultimately connects to the existing San Felipe Substation, located approximately 2.1 miles to the northwest of the point of interconnection (POI).

Goal COS-13

- ☞ **Dark Skies.** Preserved dark skies that contribute to rural character and are necessary for the local observatories.

Policies

- ☞ **COS-13.1 Restrict Light and Glare.** Restrict outdoor light and glare from development projects in Semi-Rural and Rural Lands and designated rural communities to retain the quality of night skies by minimizing light pollution.
- ☞ **COS-13.2 Palomar and Mount Laguna.** Minimize, to the maximum extent feasible, the impact of development on the dark skies surrounding Palomar and Mount Laguna observatories to maintain dark skies which are vital to these two world-class observatories by restricting exterior light sources within the impact areas of the observatories.
- ☞ **COS-13.3 Collaboration to Retain Night Skies.** Coordinate with adjacent Federal and State agencies, local jurisdictions, and tribal governments to retain the quality of night skies by minimizing light pollution.

The solar panels would be gray to black in color and highly absorptive. The materials used to construct the panels are designed to minimize the potential for reflection and retain as much of the solar spectrum as possible, thereby reducing glare. Additionally, based on technical evidence evaluating the reflectivity of PV and CPV solar panels, the proposed Project would not install highly reflective building materials that would result in a substantial increase in light or glare that would affect the surrounding area, or that would produce reflective light that would create adverse disability or discomfort glare.

Limited Project lighting would be installed to allow for security. Low-level lighting would be installed at the main entry gate to facilitate access. All lighting would be operated manually or activated via motion sensors, and would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent ownerships. All lighting would conform to County of San Diego Light Pollution Code for outdoor lighting requirements.

Air Quality, Climate Change, and Energy

Policies

- ☞ **COS-14.4 Sustainable Technology and Projects.** Require technologies and projects that contribute to the conservation of resources in a sustainable manner, that are compatible with community character, and that increase the self-sufficiency of individual communities, residents, and businesses.

The Project is intended to allow for the installation and operation of a PV or CPV electrical generation facility and represents an opportunity to provide residents of Ocotillo Wells and the greater surrounding area with clean solar energy. As future population growth continues within San Diego County, the demand for electrical service will continue to increase accordingly. The Project represents an additional clean source of electrical power that would supplement energy currently supplied by the existing power grid, thereby reducing the potential for power shortages to occur and decreasing demands on the capabilities of the existing distribution system.

The Project has been designed to respect the existing rural character of the Ocotillo Wells community with regard to scale, bulk, height, materials and color, and light and glare effects. Due to the Project's location along the valley floor and distance from sensitive land uses, combined with existing vegetation on surrounding lands and limited development within the area, the Project is not anticipated to be incompatible with the character of the community.

San Diego County Zoning Ordinance

Portions of the County Zoning Ordinance that may affect the assessment of visual impacts are generally zoning overlay designators. Relevant designators include:

- ∞ B – Community Design Review Area
- ∞ D – Design Review Area
- ∞ G – Sensitive Resource
- ∞ H – Historic/Archaeological Landmark or District
- ∞ J – Special Historic District
- ∞ S – Scenic Area

The Project site is subject to the “G” Designator for building height and the “D” Designator for setbacks. No other Designators apply to the Project or other associated lands affected by Project-related infrastructure improvements.